

Background

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Europe's Strategic Dependence on Russian Energy

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Russia is consolidating its grip on oil and gas—the economic lifeblood of Europe. Moscow is pursuing a comprehensive strategy that could increase Europe's political and economic dependence on Russian energy. Such dependence could negatively affect transatlantic relations, common values, goals, strategic objectives, and security policies. Without a policy dialogue and coordination between Washington and European capitals, Europe's strategic drift away from the United States will continue unabated.

In the meantime, European energy security policy is in disarray. Despite British Prime Minister Tony Blair's call for a common European energy policy in an October 2005 speech to the European Parliament,¹ European countries have rushed to secure their own energy interests in lieu of a more coordinated approach. In the spring and summer of 2007, Austria, Italy, and Hungary negotiated separate deals with the Russian energy giant Gazprom. These deals may undermine the EU's Nabucco project, which aims to bring Caspian gas to the heart of Europe via Bulgaria, Romania, Hungary, and into Austria.

On paper, the European Union is invested in energy security. At the 2007 spring summit in Brussels, EU members outlined an action plan on energy security for 2007–2009. First, to ensure security of supply, the EU needs to “diversif[y]...energy sources and transport routes, and better systems for responding to crises.”² Second, the EU should promote international energy policy by “negotiating a new treaty framework for energy co-operation with Russia, and

Talking Points

- Russia is consolidating its grip on oil and gas—the economic lifeblood of Europe.
- Many European countries depend heavily on energy imports and are highly vulnerable to global energy shocks.
- If current trends prevail, the Kremlin could translate its energy monopoly into untenable foreign and security policy influence in Europe to the detriment of European–American relations.
- Only a concerted response by European nations can result in the formulation and implementation of an effective and realistic policy on energy security vis-à-vis Russia.
- The U.S. should work with European governments to apply anti-monopoly legislation to Russian government-owned companies if Moscow continues to deny upstream access to Western companies.
- European countries should cooperate strategically to ensure their longer-term energy security. It is also essential that the U.S. and its European allies work together to reduce energy dependence on Russia.

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improving relations with energy-rich countries in Central Asia and North Africa.” The EU also proclaims that it wants to improve its ability to manage supply crises, to expand the energy grid connecting European countries, and to improve the functioning of the internal energy market.³

In practice, some European countries depend heavily on energy imports and are highly vulnerable to global energy shocks. The EU is the world’s largest importer of oil and gas. It imports 82 percent of its oil and 57 percent of its gas. Imports are projected to rise to 93 percent of its oil and 84 percent of its gas over the next 25 years.⁴

With Russia consolidating its control of European and Central Asian energy, and in view of Europe’s dependence on the Persian Gulf, Europe desperately needs to cooperate on energy security. Europe and the U.S. should work together to mitigate the adverse effects of Europe’s strategic dependence on Russia. In particular, the U.S. should:

- **Work** with key European governments to address vulnerabilities that result from overreliance on a single oligopolistic energy supplier—Russia. They should encourage development of EU-wide natural gas reserves, increase the consumption of liquefied natural gas, and expand the nuclear, coal, and renewable energy sectors.
- **Support** diversification of energy transportation routes in Eurasia, especially oil and gas pipelines that link Central Asian producers to European markets, bypassing Russia.

- **Continue** efforts to bring Russia into full compliance with the Energy Charter to increase predictability and transparency in energy markets.

Energy Dependence on Russia

Europe is hungry for energy. In 2006, the 25 EU members consumed 1,722.8 million tons of oil equivalent (mtoe). Nearly two-thirds came from hydrocarbons: 706.3 million tons of oil (14.9 million barrels per day) and 420.6 mtoe (476.4 billion cubic meters) of natural gas. The remaining 34.6 percent came from coal, nuclear, and renewable sources.⁵

EU energy security already depends heavily on Russia. The EU imports almost half of its natural gas and 30 percent of its oil from Russia.⁶ Eastern Europe consumes even higher percentages of Russian gas. Table 1 shows the major European recipients of Russian natural gas exports, ranked from most dependent to least dependent.

In 2006, oil imports from Russia and Central Asia reached 5.9 million barrels per day (290.8 million tons). Russia also supplied some 132 billion cubic meters (bcm) of natural gas.⁷ Rising demand indicates that Europe’s dependence on Russian energy will continue to grow.

Russia has the largest proven natural gas reserves (1,688 trillion cubic feet) and the seventh-largest proven oil reserves (60.0 billion to 74.4 billion barrels) in the world,⁸ and large areas of eastern Siberia and the Arctic are still unexplored. Total Russian net oil exports reached 7 million barrels

1. Her Majesty’s Stationery Office, “PM speech to the EU Parliament in Strasbourg,” October 26, 2005, www.number-10.gov.uk/output/Page8384.asp (October 15, 2007).
2. BBC News, “Q&A: EU Energy Plans,” March 9, 2007, at <http://news.bbc.co.uk/2/hi/europe/4783996.stm> (May 31, 2007).
3. *Ibid.*
4. Associated Press, “‘Low-Carbon Economy’ Proposed for Europe,” MSNBC, January 10, 2007, at www.msnbc.msn.com/id/16560106 (August 27, 2007).
5. BP, “BP Statistical Review of World Energy,” June 2007, pp. 11–12, 27–28, and 41, at www.bp.com/productlanding.do?categoryId=6848&contentId=7033471 (August 20, 2007).
6. Ahto Lobjakas, “Russia: EU Maintains Codependent Energy Relationship,” Radio Free Europe/Radio Liberty, May 11, 2006, at www.rferl.org/featuresarticle/2006/05/ff605d50-df88-46a9-9f0f-86b88350d1c1.html (August 20, 2007).
7. BP, “BP Statistical Review of World Energy,” pp. 20 and 30.
8. *Ibid.*, pp. 6 and 22, and estimates from *BP Statistical Review* and *Oil & Gas Journal*, reported in U.S. Department of Energy, Energy Information Administration, “World Proved Reserves of Oil and Natural Gas, Most Recent Estimates,” January 9, 2007, at www.eia.doe.gov/emeu/international/reserves.html (August 20, 2007).

per day in 2006.⁹ Chart 1 and Chart 2 show the current and projected increased levels of Russian oil and gas exports.

Russian Energy Strategy and Tactics

Russia's energy strategy seeks to make Europe increasingly dependent on Russian oil and gas. The Kremlin has advanced this strategy through a series of policies. It creates dependency by locking in demand with energy importers, consolidating the supply of oil and gas by signing long-term contracts with Central Asian energy producers, and securing control of strategic energy infrastructure in Europe and Eurasia. This includes extending the Gazprom monopoly and attempting to create an OPEC-style gas cartel.¹⁰ At the August 2007 summit of the Shanghai Cooperation Organization, the presidents of Kazakhstan and Russia called for establishment of an "Asian energy club" to expand energy ties among the member states, including creation of a unified energy infrastructure to serve as the basis for a common energy market.¹¹

Locking in Demand. Russia is attempting to lock in demand by signing long-term bilateral and multilateral contracts with European countries. Moscow prefers to deal with the EU member states separately rather than as a group so that Russia can price-discriminate among its customers, charging each country as close to its full paying potential as possible.

Gazprom has negotiated long-term supply contracts with most Western European countries, including France, Germany, Italy, and Austria. Russia has contracted for portions of Central and Eastern European demand that are much greater than that of Western Europe. Newer EU members, such as Slovakia, Bulgaria, and the Czech Republic, are almost entirely dependent on Russian gas.

Table I		B 2083	
Major Recipients of Russian Natural Gas Exports, 2005			
Rank	Country	Imports (billion cubic feet per year)	Percent of Domestic Consumption
1	Slovakia	226	108%
2	Finland	148	105%
3	Greece	85	96%
4	Bulgaria	101	89%
5	Czech Republic	252	84%
6	Austria	246	70%
7	Turkey	630	65%
8	Hungary	294	62%
9	Former Yugoslavia	134	57%
10	Poland	226	47%
11	Germany	1,291	43%
12	Italy	824	30%
13	France	406	26%
14	Romania	140	23%
15	Switzerland	13	12%
Sales to Baltic and CIS States, 2005*			
	Belarus	710	100%
	Baltic States	205	100%
	Georgia	46	100%
	Ukraine	2,113	79%
	Azerbaijan	120	36%

* Includes some re-exports of Central Asian gas.

Source: U.S. Department of Energy, Energy Information Administration, "Russia," *Country Analysis Brief*, April 2007, p. 10, Table 4, at www.eia.doe.gov/emeu/cabs/Russia/pdf.pdf (August 20, 2007).

More recently, during President Vladimir Putin's May 2007 visit to Austria, the Austrian government agreed to a major deal with Gazprom. OMV, a partially state-owned Austrian energy company, signed a long-term gas import deal with Gazprom.¹²

9. U.S. Department of Energy, Energy Information Administration, "Russia," *Country Analysis Brief*, April 2007, p. 4, at www.eia.doe.gov/emeu/cabs/Russia/pdf.pdf (August 20, 2007).

10. Ariel Cohen, "Gas OPEC: A Stealthy Cartel Emerges," Heritage Foundation *WebMemo* No. 1423, April 12, 2007, at www.heritage.org/Research/EnergyandEnvironment/wm1423.cfm.

11. Peter Fedynsky, "Shanghai Cooperation Organization Seeks to Expand Energy and Security Influence," *Voice of America*, August 16, 2007, at www.voanews.com/english/2007-08-16-voa9.cfm (August 20, 2007).

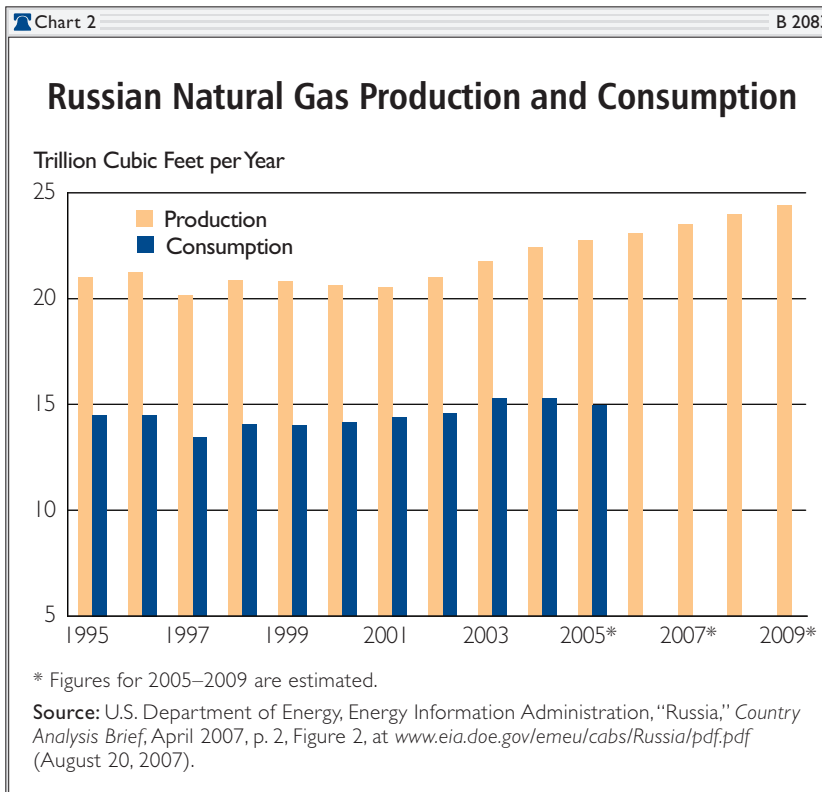
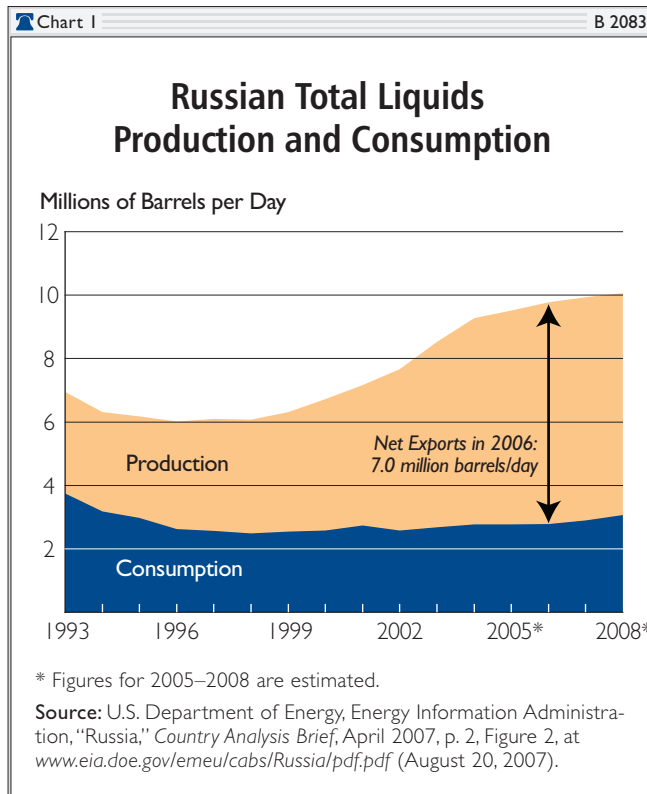
12. Judy Dempsey, "In Hungary, an Energy Battle with Russian Overtones," *International Herald Tribune*, August 9, 2007, at www.iht.com/articles/2007/08/09/bloomberg/energy.php (August 15, 2007).

Under the agreement, Gazprom subsidiaries GWH and CentrexEurope Energy and Gas will begin to deliver gas directly to Austrian consumers in 2008. Current imports from Russia account for approximately 70 percent of Austrian gas consumption.¹³ Gazprom is scheduled to deliver 6.8 bcm of gas in 2007 and 9 bcm in 2009.¹⁴ This agreement would practically integrate Austria's gas transit and storage networks (existing and planned) into Gazprom's expanding network of dependencies.

Moreover, Gazprom intends to use Austria as a transit corridor to capture other EU markets. It is planning to develop a Central European Gas Hub and Gas Transit Management Center, the largest in continental Europe, at Baumgarten near Vienna.¹⁵ In July 2007, OMV announced its intent to take over MOL, a private Hungarian energy company, which will further strengthen Russia's grip on European energy infrastructure.

Locking in Supply. Russia's second tactic is to lock in supply by consolidating its control of strategic energy infrastructure, most notably pipelines, throughout Europe and Eurasia. Russia is using outright ownership and joint ventures to control supply, sale, and distribution of natural gas and is buying up major energy infrastructure, such as pipelines, refineries, electric grids, and ports.

In 2002, Russian state-owned Transneft attempted to gain control of the Mazeikiu Nafta refinery in Lithuania and the Ventspils oil-export terminal in Latvia. When the two governments refused to sell their stakes to Transneft, Moscow sharply cut oil deliveries, forcing Ventspils to obtain oil by rail.¹⁶ Russian pursuit of the Lithuanian refinery was cut short when the Polish company PKN Orlen bought the refinery in 2006,¹⁷ but Moscow is still pursuing the Latvian terminal. As recently as May 2007, a top Ventspils executive said that "the company was prepared to take on a strategic Russian investor."¹⁸



As of 2004, Gazprom had invested \$2.6 billion in 23 major joint ventures, including buying a 50 percent stake in Slovrusgaz in Slovakia, 48 percent of Europol Gaz in Poland, and 30.6 percent of Eesti Gaas in Estonia.¹⁹ Russia is also buying up strategic infrastructure companies in Georgia, Hungary, and Ukraine.²⁰ In 1998, Gazprom took over shares of Topenergy, a Bulgarian company dealing with commercial distribution of gas.²¹

Russia is also aggressively consolidating its control of European pipelines. The Kremlin has actively opposed Western-controlled pipeline projects directly linking Eurasian energy-producing countries to European markets, such as the Baku–Tbilisi–Ceyhan oil pipeline and the Baku–Erzurum gas pipeline.

Earlier in 2003, German Chancellor Gerhard Schroeder and President Putin agreed to build a Nord Stream pipeline to supply Germany with Russian gas. The pipeline will cross the Baltic Sea and bypass Ukraine, Belarus, and Poland. (See Map 1.) It will have an annual capacity of 27.5 bcm

of gas and is expected to become operational by 2010. Gazprom owns 51 percent of the North European Gas Pipeline Company, which was created to build the pipeline's underwater section.²² This



13. BP, "Statistical Review of World Energy," pp. 27 and 30.

14. Vladimir Socor, "Gazprom Achieves an Anschluss of Austria," Jamestown Foundation *Eurasia Daily Monitor*, May 29, 2007, at http://jamestown.org/edm/article.php?article_id=2372192 (August 26, 2007).

15. Vladimir Socor, "Gazprom Takeover in Hungary Looms Behind Possible OMV Takeover," Jamestown Foundation *Eurasia Daily Monitor*, July 25, 2007, at www.jamestown.org/edm/article.php?article_id=2372317 (August 15, 2007).

16. Judy Dempsey, "Poland Supports Purchase of Refinery," *International Herald Tribune*, October 31, 2006, at www.iht.com/articles/2006/10/31/business/orlen.php (May 31, 2007).

17. RIA Novosti, "PKN Orlen, Mazeikiu Nafta to Complete Deal in Nov.," September 27, 2006, at <http://en.rian.ru/world/20060927/54311008.html> (May 31, 2007).

18. "Ventspils Nafta Ready to Cooperate with Russia," *The Baltic Times*, May 2, 2007, at www.baltictimes.com/news/articles/17809 (May 31, 2007).

19. Judy Dempsey, "Russia Casts Energy Web over East Europe," *International Herald Tribune*, October 1, 2004, at www.iht.com/articles/2004/10/01/energy_ed3.php (August 20, 2007).

20. Ariel Cohen, "Russia: Kremlin Takeover of the Russian Oil Industry?" *Capitalism Magazine*, April 21, 2005, at www.capmag.com/article.asp?ID=4196.

21. Dempsey, "Russia Casts Energy Web over East Europe."

22. Press release, "Nord Stream: The New Gas Supply Route to Europe," Nord Stream, July 20, 2007, at www.nord-stream.com/uploads/media/Nord_Stream_Press_Release_Background_info_eng.pdf (August 21, 2007), and Nord Stream, "Company," at www.nord-stream.com/company.html?&L=0 (August 21, 2007).

pipeline will further tie European energy security to the Kremlin.

In February 2007, Ukrainian Prime Minister Viktor Yanukovich abandoned a project to extend the Odessa–Brody pipeline into Poland to pump Caspian oil outside of Russian control. The new plan would pump Russian oil into the Druzhba pipeline's Slovak section, Transpetrol, which will soon be under Russian control. Loss of Transpetrol will make Slovakia and Hungary fully dependent on Russian oil.²³

The Burgas–Alexandroupolis oil pipeline will be the first Russian-controlled pipeline on EU territory.²⁴ In March 2007, Russia signed an agreement with Bulgaria and Greece to construct the oil pipeline bypassing the Turkish-controlled Bosphorus Strait. It will have a capacity of 35 million metric tons of oil per year. Russian companies Transneft, Gazpromneft, and Rosneft will control 51 percent of the pipeline. Bulgaria and Greece will control the rest.²⁵ This pipeline will allow Russia to bypass the Bosphorus chokepoint while maintaining control of oil transit. Russia is planning to build the second Bosphorus bypass from a Turkish port on the Black Sea (such as Samsun or Trabzon) to the Mediterranean.²⁶

As of March 2007, Hungary preferred to cooperate with Gazprom to extend the existing Russian–Turkish Blue Stream gas pipeline into EU territory through Bulgaria, Romania, Hungary, and Aus-

tria.²⁷ However, a more recent Russian–Italian South Stream pipeline agreement would partly replace the proposed Blue Stream extension.

At a May 2007 summit in the Turkmen port city of Turkmenbashi, Russia, Turkmenistan, and Kazakhstan agreed to build the Prikaspiiski gas pipeline to carry gas from Turkmenistan to Russia via Kazakhstan.²⁸ The deal thwarts U.S. and EU plans for a trans-Caspian pipeline that would have delivered Turkmen gas across the Caspian Sea via Turkey and would have enabled Central Asian exporters to circumvent Russian-controlled routes.²⁹

Derailing Competition. On June 23, 2007, Gazprom and Italy's ENI signed a memorandum of understanding to build the South Stream gas pipeline from Russia to Italy. This pipeline will have a capacity of 30 bcm per year and will run across the Black Sea from Russia to Bulgaria, bypassing both Ukraine and Turkey. From Bulgaria, the pipeline could run either southwest via Greece and the Adriatic Sea to southern Italy or northwest via Romania, Hungary or Austria, and Slovenia to northern Italy. Through ENI, Gazprom has gained access to Italian distribution systems and consumers.³⁰

The South Stream pipeline will increase EU dependence on Russian energy and compete directly with the Nabucco gas pipeline project backed by the EU and U.S. The Nabucco pipeline was expected to transport gas from the Caspian basin to Europe via Turkey, Bulgaria, Romania,

23. Vladimir Socor, "Slovak Detour Would Defeat Odessa–Brody Oil Transport Project," Jamestown Foundation *Eurasia Daily Monitor*, February 28, 2007, at www.jamestown.org/edm/article.php?article_id=2371953 (August 20, 2007).

24. "A Bear at the Throat," *The Economist*, April 12, 2007, at www.economist.com/world/europe/displaystory.cfm?story_id=9009041 (August 20, 2007).

25. RIA Novosti, "Russia, Bulgaria, Greece Sign Balkan Pipeline Deal," March 15, 2007, at <http://en.rian.ru/russia/20070315/62048590.html> (August 21, 2007).

26. Ariel Cohen, "The National Security Consequences of Oil Dependency," Heritage Foundation *Lecture No. 1021*, May 14, 2007, at www.heritage.org/Research/NationalSecurity/hl1021.cfm.

27. Judy Dempsey, "Hungary Chooses Gazprom over EU," *International Herald Tribune*, March 12, 2007, at www.ihf.com/articles/2007/03/12/news/hungary.php (August 15, 2007).

28. BBC News, "Russia Clinches Gas Pipeline Deal," May 12, 2007, at <http://news.bbc.co.uk/2/hi/asia-pacific/6649169.stm> (May 31, 2007).

29. Sergei Blagov, "Russia Celebrates Its Central Asian Energy Coup," EurasiaNet, May 16, 2007, at www.eurasianet.org/departments/insight/articles/eav051607.shtml (August 21, 2007).

30. Vladimir Socor, "South Stream: Gazprom's New Mega Project," Jamestown Foundation *Eurasia Daily Monitor*, June 25, 2007, at www.jamestown.org/edm/article.php?article_id=2372249 (August 15, 2007).

Hungary, and Austria, benefiting all 27 EU member countries.³¹ However, its chances are shrinking as Gazprom is building up influence in Europe and reaching agreements on alternative routes. South Stream also rivals the proposed extension of the EU-backed Baku–Erzurum gas pipeline via Turkey, either connecting to the Nabucco pipeline or continuing on to Greece and Italy.

In mid-July 2007, in response to South Stream's bypass of Turkey, Ankara reached an agreement with Tehran to receive some 30 bcm per year of Iranian and Turkmen natural gas (via Iran) for domestic use or for transport further west to Europe. The deal envisages constructing two separate gas pipelines across Turkey, as well as developing three gas fields in Iran's giant South Pars field, and a reported investment of \$3.5 billion.³² On July 26, Italy, Greece, and Turkey signed a deal to import Caspian and Middle Eastern gas to Italy via Greece and Turkey. The project will include an enlarged Turkish gas network; a Turkey–Greece link (the IGT pipeline with a capacity of 11.5 bcm per year, to become operational in 2007); and a Greece–Italy link (the IGI pipeline with a capacity of 8 bcm per year, to be completed by the end of 2012).³³

The U.S. is concerned about increased energy links between Turkey and Iran at a time when Washington is seeking to isolate Iran internationally because of its nuclear program and efforts to destabilize Iraq. The U.S. Congress is considering an amendment (H.R. 957) to the Iran Sanctions Act of 1996 to expand and clarify the entities subject to sanctions.³⁴ According to the bill, sanctions could

be imposed on foreign companies that invest more than \$20 million in Iran's oil and gas sector. This amendment would pit U.S. foreign policy objectives against Europe's energy needs and put Iran in competition with Russian energy exports to Europe. However, increased dependence on Iranian energy brings even greater economic and geopolitical vulnerabilities and could be detrimental to Europe's, including Turkey's, transatlantic alliances.

External Consolidation. The Kremlin is also consolidating its control of oil and gas supplies throughout Eurasia, particularly by signing long-term exploration and supply agreements with Turkmenistan, Uzbekistan, and Kazakhstan to preempt independent export arrangements with the West. These agreements defeat the EU's major goals of avoiding strategic dependence and diversifying supply.

Turkmenistan is a good example of this policy. A 2003 agreement set the price for 2003–2006 gas deliveries from Turkmenistan to Russia at \$44 per 1,000 cubic meters.³⁵ An October 2006 agreement commits all current Turkmen gas production to Russia and raises the price to \$100 per 1,000 cubic meters, ensuring Russian control over regional energy flow.³⁶

Uzbekistan remains an important source of gas for Russia. In January 2007, a Gazprom subsidiary started exploring and developing several gas deposits in northwestern Uzbekistan. Russia's agreement with Uzbekistan gives the subsidiary a five-year exploration license and the exclusive right to export the gas.³⁷ President Putin and Uzbek President

31. Nabucco Gas Pipeline International GmbH, "Project Description," at www.nabucco-pipeline.com/project/project-description-pipeline-route/index.html (August 21, 2007).
32. Breffni O'Rourke, "Turkey/Iran: Gas Deal Marks New Stage in Energy Cooperation," Radio Free Europe/Radio Liberty, July 19, 2007, at www.rferl.org/featuresarticle/2007/07/4875C449-63C9-4724-B9B9-6AAD1CAF4BEF.html (August 16, 2007).
33. AFX News, "Italy, Greece, Turkey Sign Gas Transit Deal; Pipelines to Start by 2012—Edison," *Forbes*, July 26, 2007, at www.forbes.com/business/feeds/afx/2007/07/26/afx3955664.html (August 16, 2007).
34. GovTrack.us, "H.R. 957—110th Congress: To Amend the Iran Sanctions Act of 1996 to Expand and Clarify the Entities Against Which Sanctions May Be Imposed," at www.govtrack.us/congress/bill.xpd?bill=h110-957&tab=summary (August 26, 2007).
35. Vladimir Socor, "Caspian Gas and European Energy Security," Jamestown Foundation *Eurasia Daily Monitor*, March 10, 2005, at www.jamestown.org/downloads/Transcript_caspian031005.pdf (May 25, 2007).
36. Asia News, "Turkmenistan Raises Gas Prices by 50 Percent, Russia Pays," September 7, 2006, at www.asianews.it/index.php?l=en&art=7152 (May 31, 2007).
37. Vladimir Socor, "Uzbek Gas Output, Export Set to Grow Under Russian Monopoly Control," Jamestown Foundation *Eurasia Daily Monitor*, February 22, 2007, at http://jamestown.org/edm/article.php?article_id=2371933 (May 31, 2007).

Map 2

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Primary Russian Oil and Gas Pipelines to Europe



Source: U.S. Department of Energy, Energy Information Administration, "Russia," Country Analysis Brief, April 2007, p. 11, at www.eia.doe.gov/emeu/cabs/Russia/pdf.pdf (August 20, 2007).

Islam Karimov have signed an agreement awarding exploration and development rights to Gazprom for 35 years.³⁸

Internal Consolidation. Moscow is acting to consolidate Russia's oil and gas sector in the hands of government-controlled entities. The Kremlin is also pushing major international energy corporations out of the Russian energy sector. Russian Minister of Natural Resources Yuri Trutnev announced in February 2005 that Moscow intends to keep Western firms from bidding on mining and drilling licenses for major natural resources.³⁹

The Kremlin amalgamated the Yukos oil company into its state-owned flagship after bankrupting the company with inflated tax bills in 2003. In 2005, Yukos chairman Mikhail Khodorkovsky was sentenced to nine years after a 19-month pretrial detention and conviction on six charges, including personal and corporate tax evasion and fraud.⁴⁰

Royal Dutch Shell has been pushed out of a major Russian energy project. In 2006, under pressure from the Kremlin for alleged environmental breaches, Shell announced the sale of its majority stake in Sakhalin-2 oil and gas fields off Sakhalin Island to Gazprom.

The last major Russian independent oil company, LUKoil, is gradually coming under the Kremlin's control. On March 6, 2007, LUKoil chairman Vagit Alekperov announced a joint venture between LUKoil and Gazpromneft, a Gazprom subsidiary, to develop future oil projects, with Gazpromneft owning 51 percent of the venture.⁴¹

Most recently, BP was evicted from the lucrative Kovytko gas field in eastern Siberia. TNK-BP joint venture was unable to meet the Kremlin's production quotas because Gazprom refused to

develop any export pipelines. After officials threatened to cancel the license and the courts refused to intervene, TNK-BP sold its 62.9 percent stake in Kovytko to Gazprom at a fraction of its market value.⁴²

Domestic consolidation of Russia's oil and gas industry under the Kremlin's direct ownership or control increases Moscow's ability to use energy as a foreign policy tool. These major takeovers and evictions further limit the opportunities for foreign investment in and technology transfer to the Russian energy sector. They signal the return of statist economic policies and a major departure from market liberalization.

A Gas OPEC. Most important, Russia is stealthily and steadily developing a cartel to control the price and output of natural gas—a gas OPEC. This cartel will include the world's major gas producers: Argentina, Bolivia, Venezuela, Iran, and Qatar.

During his February 2007 visit to Qatar, President Putin called the gas OPEC “an interesting idea.”⁴³ In Doha, Russia initiated the creation of a high-level group to “research” gas pricing and develop methodologies using gas pricing models. An unnamed “high ranking member of the Russian delegation” told RIA Novosti that “as the gas market undergoes globalization, certainly such an organization [a gas cartel] will appear and is necessary.”⁴⁴

For Europe, dependence on such a cartel would be worse than dependence on OPEC, because Russia has direct national interests with regard to Europe: preventing NATO expansion and deployment of anti-ballistic missile defenses, fostering division between Europe and the United States, and regaining more comprehensive control of the post-Soviet space.

38. Socor, “Caspian Gas and European Energy Security.”

39. Cohen, “Russia: Kremlin Takeover of the Russian Oil Industry?”

40. C. J. Chivers and Erin Arvedlund, “Russian Oil Tycoon Is Convicted and Sentenced to 9 Years in Jail,” *The New York Times*, May 31, 2005, at www.nytimes.com/2005/05/31/international/europe/31cnd-russia.html (October 23, 2007).

41. Cohen, “The National Security Consequences of Oil Dependency.”

42. “Russian Arm Twisting,” *The Economist*, June 22, 2007, at www.economist.com/world/europe/displaystory.cfm?story_id=9390152 (August 13, 2007).

43. Cohen, “Gas OPEC.”

44. *Ibid.*

Trends in European Energy Security

In evaluating what this Russian energy strategy means for Europe, there are three important considerations.

First, European energy consumption and import dependency are rising. In 2030, the EU is expected to consume 15 percent more energy than it consumed in 2000, with consumption stabilizing after 2020.⁴⁵ Europe will generally meet its increased energy needs with natural gas and renewables. Demand for natural gas is projected to grow considerably through 2030, increasing to 140 mtoe per year over 2000 levels. Oil will remain the most important fuel, but with minimal projected growth in consumption. After a slight decrease, solid fuels are projected to return almost to the current level by 2030 due to high oil and gas prices and the nuclear phaseout in some EU member states.⁴⁶ (See Chart 3.)

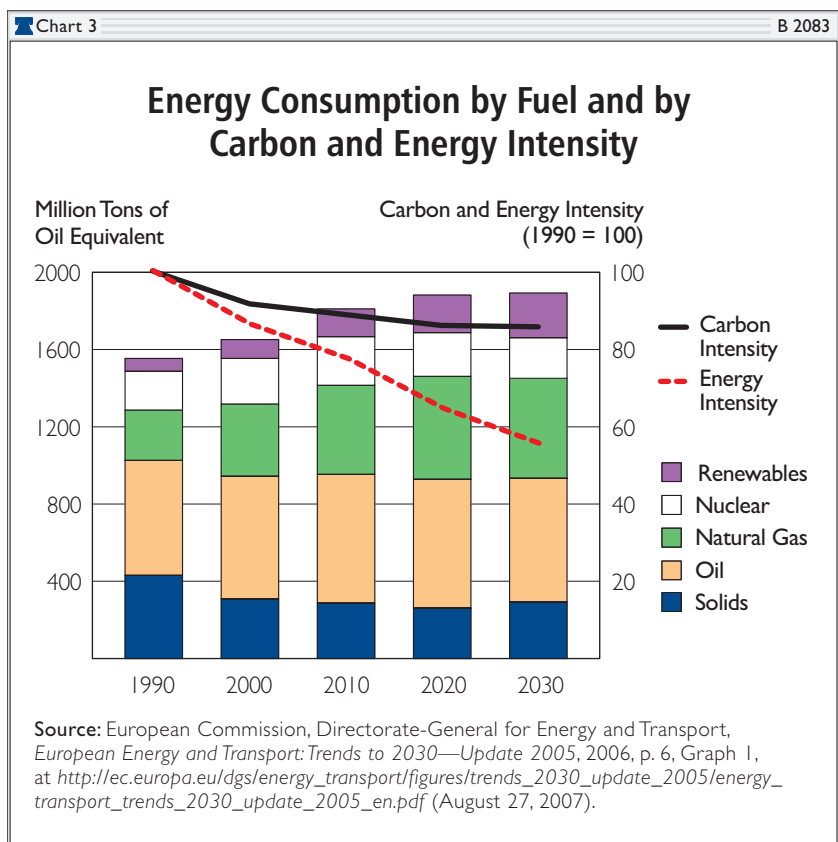
European energy production is declining sharply, particularly in hydrocarbons, solid fuels, and nuclear energy. Between 2000 and 2030, the production of European oil, gas, and solid fuels is expected to decline by 73 percent, 59 percent, and 41 percent, respectively, but production of renewables should more than double. Altogether, European production in 2030 will be 25 percent below 2000 levels.⁴⁷

By 2030, because of growing energy demand and declining domestic production, Europe will rely on imports for two-thirds of its energy needs. Dependence on imported oil will remain extremely high, reaching 94 percent in 2030. Dependence on imported gas will

rise from about 50 percent today to 84 percent in 2030, and imports of solid fuels are projected to reach 59 percent in 2030.⁴⁸

Second, European energy supply routes remain concentrated. Before 1999, about 95 percent of Russian natural gas exports outside of the former Soviet republics transited Ukrainian territory.⁴⁹ Since then, Russia has initiated a number of projects to diversify gas transmission routes. As of 2006, however, 80 percent of Russia's gas exports to Europe still passed through Ukraine.⁵⁰

Third, European leaders are partly responsible for growing gas demand. Europe, led by Germany and the United Kingdom, has made a conscious choice to rely on gas as its main new source of energy at a



45. European Commission, Directorate-General for Energy and Transport, *European Energy and Transport: Trends to 2030—Update 2005, 2006*, at http://ec.europa.eu/dgs/energy_transport/figures/trends_2030_update_2005/energy_transport_trends_2030_update_2005_en.pdf (August 27, 2007).

46. *Ibid.*

47. *Ibid.*

48. *Ibid.*

time when domestic supplies are declining. Europe has encouraged the construction of gas-fired plants, feeding the demand for more gas.⁵¹

Implications for European Energy Security

These developments have dire implications for European energy security.

First, Europe should expect higher prices in the coming decades, especially because its supply is becoming concentrated in Russian hands. Moscow has already demonstrated its willingness to raise oil and gas prices and to use energy as a foreign policy tool, as recent incidents in the Baltic States, Ukraine, Azerbaijan, Belarus, and Georgia have clearly shown.

Second, Europe should expect increasing disruptions of its energy supply. The long and intense cold wave in 2006 increased Russian demand for gas and strained Gazprom's delivery capability.⁵² Another cold wave could knock refineries and pipelines off-line. Such disruptions would impose economic costs and could cost lives.

In the future, because of insufficient production, Russia may be unable to satisfy Europe's growing demand for gas. Output from Gazprom's three giant fields in West Siberia, which account for three-quarters of its production, is declining by 6 percent to 7 percent per year, and the output from a gas field brought on-line in 2001 has already peaked.⁵³ Gazprom has decided to develop a field on the Yamal peninsula, but it will take years for that field to start producing.

Gazprom has been reluctant to invest in new fields. Many hopes are connected to exploration of the Shtokman gas field, which is over 550 kilometers offshore in the Barents Sea and under 300 meters of water.⁵⁴ After many delays, Gazprom reconsidered its decision to "go it alone" and on July 13, 2007, signed a framework agreement with France's Total for the first phase of Shtokman development. However, under the agreement, Gazprom retains full ownership rights to the gas through its subsidiary Sevmorneftegaz.⁵⁵

Gazprom's choice of a partner was politically motivated, and it took a phone conversation between French President Nicolas Sarkozy and Russian President Putin to clinch the deal. Total is cash rich but has no experience working in Arctic conditions.⁵⁶ The chances that this joint venture will succeed are unclear. In late October 2007, recognizing that it cannot launch Shtokman even with Total, Gazprom sold another 24 percent of the project to StatoilHydro, a Norwegian state-controlled company, which reportedly will pay \$800 million for its stake.⁵⁷

Meanwhile, Russia's own demand for gas is growing by over 2 percent per year. Comparing Russia's uncertain supply with Europe's growing demand, a senior European Commission official estimated that the EU's annual energy needs will increase by 200 million metric tons of gas by 2020, while Russia envisions expanding its gas exports by just 50 million metric tons.⁵⁸ In this scenario, even Russia may be unable to meet European demand.⁵⁹

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Policy Implications for the United States

From the American perspective, growing European dependence on energy from and infrastructure owned by Russia is a negative geopolitical trend. The Kremlin has demonstrated its readiness to use energy as a political tool. Russia's assertive Cold War-like posture is a growing concern for Washington.

It is in the U.S. strategic interest to mitigate Europe's dependence on Russian energy. The Kremlin will likely use Europe's dependence to promote its largely anti-American foreign policy agenda. This would significantly limit the maneuvering space available to America's European allies, forcing them to choose between an affordable and stable energy supply and siding with the U.S. on some key issues.

In general, greater stability, security, and rule of law in energy-exporting states would ensure that oil and gas remain readily available, ample, affordable, and safe. To achieve these goals, the U.S. government should:

- **Work with key European governments to address vulnerabilities** that result from over-reliance on Russia. Only a concerted response by European nations can result in the formulation and implementation of an effective and realistic policy on energy security vis-à-vis Russia. For example, the European Commission's Gas Coordination Group could facilitate inter-governmental coordination in natural gas. The U.S. should:
 1. **Support** the development of European joint and national natural gas reserves to increase preparedness to weather short-term and medium-term interruptions of the gas supply;
 2. **Encourage** European leaders to consider increasing use of liquefied natural gas consumption, which is a more flexible delivery system in terms of geography and infrastructure;
 3. **Encourage** Europe to increase its use of nuclear, coal, and renewable energy; and

4. **Work** with European governments to apply anti-monopoly legislation to Russian government-owned companies if Moscow continues to deny upstream access to Western companies.

- **Support diversification of energy transportation routes in Eurasia**, specifically the construction of oil and gas pipelines linking Kazakhstan and/or Turkmenistan to Europe across the Caspian Sea; pipelines connecting the Baku–Tbilisi–Ceyhan oil pipeline and the Baku–Erzerum gas pipeline; and a gas pipeline to link Azerbaijan and Central Asian producers to Southern European markets via the proposed Nabucco pipeline. The U.S. should work with European countries and Turkey to prevent increased European dependence on Russian and Iranian gas through the South Stream gas pipeline project.
- **Continue efforts to bring Russia into full compliance with the Energy Charter.** Russia has signed the charter but has not ratified it. Ratification and compliance would increase Moscow's predictability and transparency in energy markets and attract foreign investments. The U.S. and Europe should discourage Russia from using politically motivated pricing schemes and monopolistic practices.

Conclusion

Many European countries depend heavily on energy imports and are highly vulnerable to global energy shocks. If current trends prevail, the Kremlin could translate its energy monopoly into untenable foreign and security policy influence in Europe to the detriment of European–American relations.

In particular, Russia is seeking recognition of its predominant role in the post-Soviet space and Eastern Europe, as the latest crisis around missile defense deployment in Poland and Czech Republic has demonstrated. This will affect the geopolitical issues important to the U.S., such as NATO expansion to Ukraine and Georgia, ballistic missile defense, Kosovo, and U.S. and European influence in the post-Soviet space.

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59. "A Bear at the Throat."

At a minimum, the U.S. and Europe should work to support new transit lines that bypass Russia, and European countries should cooperate strategically to ensure their longer-term energy security. It is essential that the U.S. and its European allies combine their efforts in finding and implementing innovative ways to reduce energy dependence on Russia.

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