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RENEWED FOCUS ON EUROPEAN ENERGY SECURITY

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GIVEN BEFORE THE UNITED STATES SENATE
COMMITTEE ON FOREIGN RELATIONS,
SUBCOMMITTEE ON EUROPEAN AFFAIRS

The twenty-first century is the era of natural gas. In the nineteenth century, coal was the dominant fuel source and in the twentieth century, it was oil. In the twenty-first century, enormous new natural gas sources have been discovered and produced. These new discoveries are vast in quantity and varied in location, with new parts of the globe becoming natural gas producers and new volumes far exceeding the rise in global demand for natural gas. Natural gas has many benefits as a fuel source, such as its low environmental impact and lower carbon emissions than most other energy sources. In many markets, it is also the cheapest source of energy for power generation and other functions. With these economic and environmental advantages, natural gas consumption has become widespread and in many places is supplanting coal as the main source of power generation. Natural gas is also the fuel that is most compatible with the use of renewable energy as a base load in power generation, and thus consumption of natural gas goes hand in hand with consuming of renewables under current technologies.

However security of supply is more challenging with natural gas than most other fuel sources, as natural gas' physical qualities make it complicated and expensive to ship. Consequently, there is a greater need in the coming decades for meticulous policies and government involvement to ensure security of supply of natural gas. The market alone will not create the infrastructure, multiple supply sources, storage, and contingency plans that can ensure security of supply.

In recent years, Europe has had a number of challenges in the sphere of energy security: carbon emissions are rising, high power generation costs are challenging the competitiveness of Europe's industry, and the security of the continent's natural gas supplies is tenuous. The recent Ukraine crisis serves as a new wake-up call regarding the importance of ensuring Europe's continued energy security.

The United States treats Europe's continued energy security as an integral part of U.S. national security policy. In recent years, the United States has significantly improved its capacity to integrate international energy policy into its foreign policy through the successful establishment of the State Department's Bureau of Energy Resources. In this recent crisis in Ukraine and in a

number of arenas around the world, it is clear that this bureau plays an important role in promoting U.S. national security and energy interests, including developing a comprehensive policy to improve European energy security in light of the recent crisis.

A number of measures can improve European natural gas energy security: focusing policies on specific markets in Europe that are at high risk for disruption of security of supply; respecting legitimate Russian commercial demands, such as payment for the gas it has shipped to Ukraine; developing new natural gas sources for Europe, especially the Southern Gas Corridor; identification organizations that are funded by Russia to undermine European energy security under the guise of promoting environmental protection; preventing European companies from acting as surrogates for Gazprom; halting potential price manipulation at gas sale hubs; requiring that NATO and EU members such as Bulgaria adopt EU energy security policies; and separating out EU climate change and renewable energy policies. In my testimony, I will elaborate on these policy suggestions and propose a policy approach for natural gas energy security policy in Europe.

A number of measures can improve European energy security:

- Focusing policies on specific markets in Europe that are at high risk for disruption of security of supply
- Making payment to Russia for the gas it has shipped to Ukraine
- Developing new natural gas sources for Europe, especially the Southern Gas Corridor
- Identification of environmental movements that are funded by Russia to undermine European energy security
- Preventing European companies from acting as surrogates for Gazprom
- Halting potential price manipulation at gas sale hubs
- Requiring that NATO and EU members such as Bulgaria adopt EU energy security policies
- Separating EU climate change and renewable energy policies

The natural gas supply situation in Europe is quite complex, and U.S. policies should focus on improving the security of supply in Europe's most vulnerable markets. Observers may speak of a single European energy market, but that is an illusion. States on Europe's periphery have much higher energy prices and bigger security challenges than those in the west and center of Europe. The European Council's [recently drafted Energy Security Strategy](#) recognizes the uneven nature of the supply situation in Europe, and the EU is beginning to take positive steps to address this asymmetry.

Assessing a market's vulnerability to supply disruption depends on a number of factors, including the diversification of a state's fuel mix, its supply connections with neighbors, its capacity to switch to different fuels in power generation, the extent of its fuel storage (and

especially natural gas storage) capacity, and the extent to which natural gas forms a part of a country's fuel mix.¹ Some markets, such as Germany, have multiple suppliers, and have energy infrastructure that connects it with neighbors. Other states, such as Poland, currently have access only to Russian natural gas, but natural gas is a small part of its power generation and total fuel consumption. Hungary also has only a single gas supplier, but it maintains extensive natural gas storage capacity and thus can easily endure supply disruptions.

Southern Europe and southeastern Europe contain some of the markets that are most vulnerable to potential natural gas supply disruptions. Not only do a number of the markets in the region rely on Russia as their single gas supplier, most of the markets in southern Europe are not interconnected by gas pipelines.

Natural gas sectors must be properly organized to guarantee security of supply, regardless of the origin of the supplies and the political situation. Supply disruptions most frequently result from technical glitches, natural disasters, or extreme weather. One of the biggest challenges in recent decades to the security of the natural gas supply in Europe took place in winter 2012 when severe cold weather created an extreme demand for gas, leaving some nations, such as Italy, Bulgaria, and Slovakia, without adequate supplies.

Price disruptions also hit European states in an uneven manner. States with multiple supply options, mostly in western Europe, are able to contract gas for much lower prices than states located in Europe's periphery, such as in the continent's south and east, which rely mostly on supplies from Russia. Thus, natural gas energy security policies should target Europe's most vulnerable markets.

Next, the United States and Europe should make sure that Kiev gets its natural gas sector in order. In order to improve the security of energy supply, consumers should honor their contractual agreements with their Russian supplier. Ukraine's unpaid gas bills to Russian-led Gazprom, therefore, are a legitimate Russian concern. Ukraine is the major transit point for

¹ For more on natural gas supply disruptions and foreign policy, see Brenda Shaffer. "[Natural gas supply stability and foreign policy](#)." *Energy Policy* 56 (2013): 114-125.

Russian gas into Europe. In the last decade, Ukrainian political elites across the political spectrum engaged in reckless siphoning of gas, disregarded payments, and provided massive subsidies that encouraged runaway gas consumption. In addition, Ukraine houses Gazprom's most important gas storage facilities. By acting as a reliable transit and storage partner, Kiev can create additional supply options for itself, from both neighbors in Europe and even Russia. However, companies will not utilize these immense storage facilities if they do not trust Ukraine to release these supplies or pay its bills.

Additional natural gas suppliers can also improve the security of supply in Europe. The most promising new source of gas into Europe is the Southern Gas Corridor. Beginning in 2019, this project will bring natural gas from Azerbaijan to southern Europe. This project is the first in decades to bring new volumes of natural gas into Europe (as opposed to only transiting existing supplies). This project also reaches specific gas markets of southern Europe that have previously relied primarily on a single source, leading to supply vulnerability and high import prices.

The Southern Corridor is a massive project, involving seven countries, six regulatory systems, twelve investing companies, and costing \$45 billion. It will bring significant investment and create tens of thousands of jobs in southern Europe. The Southern Gas Corridor is an energy superhighway that can facilitate transport of increased volumes of gas from different sources, such as additional fields in Azerbaijan, Central Asia, Iraq, and potential production in the eastern Mediterranean. Spurs can be built from the Southern Corridor to reach additional markets in Europe, such as the Balkans. The project is being built with double the capacity that is needed for its current supply contracts and can be scaled up to a capacity of 60 BCM (2.2 tcf) annually in order to serve as a conduit for additional supplies into Europe. The Southern Gas Corridor will also serve as a catalyst for new interconnectors in Southern Europe and thus should help improve the supply situation in this region.

The Southern Corridor Natural Gas Pipeline



The State Department's Bureau of Energy Resources (and specifically Ambassador Carlos Pascual and Deputy Assistant Secretary Amos Hochstein) and Directorate-General for Energy of the European Commission, led by Commissioner Günther Oettinger, have played a vital role in cultivating this project and arriving at the final investment decision in December 2013. This project, however, needs continued support to ensure that Russia does not succeed in undermining it along the route. Final Investment Decision is only one stage in the process of establishing the Southern Gas Corridor.

Azerbaijan could have sold its natural gas at a higher profit to neighboring Iran and Russia, but embarked on the ambitious Southern Gas Corridor project in order to link itself with Europe and lower its dependence on these neighboring states. This strategic choice entails closer cooperation with Europe, Turkey, and the United States., but also elicits potentially negative responses from Russia and Iran, and thus needs U.S. and European political attention. Moscow may try to disrupt this project by supporting bogus environmental movements or using surrogate companies to buy infrastructure along the route. Russia may also attempt to reignite the Nagorno-Karabagh conflict between Azerbaijan and Armenia or destabilize Georgia in order to thwart the Southern Corridor. In May 2014, the U.S. representative to the OSCE Minsk Group, Ambassador James Warlick, made an important statement reaffirming the long-standing

U.S. policy on the Nagorno-Karabakh conflict, and the State Department is attempting to invigorate the peace process between Azerbaijan and Armenia.² Continued U.S. interest in resolving the conflict is important for removing a potential means for Russia to destabilize the region.

Another potential new source of natural gas into Europe is from Israel and Cyprus. Eastern Mediterranean gas will only be able to serve as a source for mainland Europe if additional discoveries are found. At this point, there is most likely only 200 to 300 BCM (7-10.6 tcf) available for export, and these volumes would not justify a major new export project. Exploration is continuing and additional volumes may be discovered. Existing natural gas volumes, however, are still very useful in improving the energy security and prosperity for Cyprus, Israel, and their neighbors.

The discovery of significant reserves of offshore natural gas in Israel in 2009 and 2010 and rather smaller volumes of offshore natural gas in Cyprus in 2011 has sparked interest in their potential to contribute to regional cooperation and peace. These newfound resources, it is often said, can serve as peace catalysts and promote reconciliation between Israel and its neighbors, facilitate the reunification of Cyprus, and foster cooperation between Cyprus and Turkey. However, the probability that these new natural gas resources may serve as a lever for conflict resolution or produce far-reaching geopolitical effects is rather low. There is no evidence from elsewhere in the world that trading in energy is an incentive for peace. Case studies show no instances in which the incentive of energy trade led countries to make concessions on issues critical to peace agreements such as borders and the status of refugees.³ Energy trade reflects existing peaceful relations; it does not create them. In many cases, the causal arrow points the other way; disputes over energy resources or commercial conditions of trade can exacerbate existing political conflicts.

² <http://www.state.gov/p/eur/rls/rm/2014/may/225707.htm>

³ For more on “peace pipelines,” see Brenda Shaffer, “Natural gas supply stability and foreign policy,” [Energy Policy 56 \(2013\)](#), p. 6; Brenda Shaffer, *Energy Politics* (Philadelphia: University of Pennsylvania Press, 2009), pp. 70-74.

While the new natural gas volumes may not serve as “peace pipelines,” cooperation in the development of these resources can *reinforce* any political breakthroughs in the Middle East peace process or in efforts to find a comprehensive solution to the problem of the division of Cyprus. Moreover, the development of these resources has the potential to benefit the greater region by lowering the costs of desalination and increasing the supply of fresh water, and therefore these new natural gas reserves can contribute to the elimination of water conflicts in the region. The increased water supply enabled by the new natural gas volumes has already had a positive impact in the region. The new natural gas resources can also help the region by providing reliable and affordable electricity to the Palestinian territories, Jordan, and potentially to Lebanon and Syria. This is especially significant to a region where most countries’ electricity supply is limited to certain hours of the day and where electricity production is unstable and cost-prohibitive.

In recent months, there has been some speculation that if a deal on Iran’s nuclear program was reached with the West, Tehran could serve as a new supplier of natural gas to Europe and thus reduce dependency on Russia. This idea is quite far-fetched. While Iran indeed holds the second-largest natural gas volumes in the world, today Iran is, rather surprisingly, a net *importer* of natural gas. Due to low production volumes, huge domestic consumption, and low energy efficiency—all of which are exacerbated by gas price subsidies—Tehran imports today more gas than it exports (to Turkey and Armenia). In addition, if Iran tried to launch a gas export project to Europe, Russia would surely block it. In the past, Moscow has taken steps to block the entrance of Iran into European gas markets: in 2006, Gazprom bought a pipeline from Iran to Armenia and limited its size to ensure that it could not be used to carry Iranian gas into Europe. While Russia and Iran may seem like allies, their cooperation is tacit. Over many issues there is strategic competition between Iran and Russia, and especially in the sphere of potential natural gas export.

As part of improving the security of supply, Europe must foil Moscow’s effort to prevent new supplies from reaching Europe. Moscow employs sophisticated policies to continue its role as the dominant energy supplier in Europe and blocks indigenous production efforts in Europe and rival supply projects. For instance, Moscow sponsors and funds bogus environmental

movements to oppose shale gas production in Europe and new gas pipeline projects. Astute, professional government analysis should identify and disrupt the sophisticated organizations and companies that Moscow utilizes to protect its dominance in Europe. Policies should be enacted that would remove the nonprofit status of these groups that collaborate with Russia and legislation similar to that that combats terror financing should bar European organizations from receiving funds from Moscow that are intended to promote Russia's foreign and security policy aims.

In addition, the EU should investigate Moscow's use of surrogate European and Russian companies and enact legislation that bars this behavior. Moscow attempts to gain influence over rival projects directly, via Russian companies, or indirectly, through closely allied companies in Europe, to hold on to its influence over the supply of gas to Europe. Gazprom and a number of European companies also use informal alliances to circumvent EU legislation meant to unbundle energy production, transmission, and distribution.

Another mechanism that Moscow can exploit to influence gas trade is manipulation of gas hub trade in Europe. The EU has encouraged the gas trade to transfer from long-term contracts with set prices or prices pegged to oil or other commodities to gas trade hubs with spot prices. Many new gas supply contracts signed in recent years have hub-based prices for part or all of their supplies. In Europe's case, the adoption of hub pricing may actually allow outside players to increase their hold on Europe. Gazprom, the largest source of gas traded currently on the continent's hubs, could manipulate hub prices by flooding or withholding gas from particular hubs to its own advantage. Policy mechanisms must be devised to prevent Russia or other actors from price manipulation at Europe's gas trade hubs.

The new EU energy security strategy calls for coordination among its members and solidarity after recognizing that the energy supply situation in eastern and southern Europe differs fundamentally from that of western Europe. Eastern European states must embrace policies designed to boost their own long-term security and independence, and Washington and Brussels should clarify to NATO and EU members that belonging to these organizations entails obligations related to their energy infrastructure and security. Bulgaria's reluctance to

implement policies intended to improve its security of supply is particularly worrying, as it appears to reflect Russia's strong influence and frequent intervention in domestic political developments there.

Despite the EU's strong public support for policies to avert climate change, Europe's carbon emissions have risen in recent years. This is due primarily to the rise in coal consumption in Europe. It seems that Europe's failure to reduce its emissions emanates from the fact that it has linked its climate change policy to its renewable energy policies. Mandatory use of renewables has inadvertently encouraged utilities to use coal as a way to lower electricity production costs, thus contributing to the unintended consequence of rising emissions. In order to address this challenge, the EU needs to separate its climate change policy and renewable energy policy. Wind and solar power in their current technological states, regardless of how many subsidies are thrown at them, cannot deliver sufficient energy to current consumption demands. Europe needs climate change policies that address current consumption levels, with funds also invested in Europe's laboratories to discover the answers for the renewable future.

Ensuring Europe's natural gas security of supply entails a paradigm shift in energy policy. Up until this year, Europe's approach to the issue has focused on strengthening market mechanisms ("liberalization") and reducing both EU and national government involvement in Europe's gas trade. Over the years, as the challenges have grown, Brussels has increasingly pulled European Union institutions and member states out of the business of ensuring energy security and delegated the job to the invisible hand of the market. But the marketplace alone will not be enough to counter a relentless Russia. National and EU institutions must take a more active, strategic role.