

# EASI

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## Energy as a Building Block in Creating a Euro-Atlantic Security Community

**Of the key issue areas where progress would help open the way to the creation of a more cohesive and effective security collaboration among the states of the Euro-Atlantic region, enhanced energy security is particularly important.**

One dimension of this issue, the development of hydrocarbons in the oil- and gas-rich Arctic region, represents a historic opportunity to make cooperation a critical building block in fashioning a common Euro-Atlantic security space. The other, ensuring stability and predictability in the gas trade between European Union members and Russia, constitutes both a challenge to be met, lest failure threaten progress toward the larger goal, and an opportunity to make energy a critical element advancing this goal. The report of the Euro-Atlantic Security Initiative's distinguished Working Group on Energy addresses both issues and makes concrete recommendations for achieving a positive outcome in each case.



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**Without economic security for its members there cannot be a fully functioning Euro-Atlantic Security Community, and without energy security for all, there cannot be economic security.**

Whether governments are prepared to work seriously to promote economic and energy security across the Euro-Atlantic region represents one of the stiffest tests of their determination to make of this powerful set of countries a genuinely integral security community. If they pass the test—if they work energetically to transform this vast region into a common economic space in which all Euro-Atlantic countries feel secure in meeting their energy needs—they will have done much to fashion the “comprehensive, cooperative, and indivisible security community, stretching from Vancouver to Vladivostok” to which they committed themselves at the last Organization for Security and Cooperation in Europe heads-of-state summit in December 2010. The progress made will be on par with the headway that could be achieved by making missile defense a common undertaking, by overcoming the regional conflicts that tear at the fabric of European security, or by leaving to the past the grievances and mistrust that burden relations between too many countries.

To turn this great swath of countries—fully one-half of the world economy—into an optimally efficient trading and investment sphere will require, first, a level playing field for all. Hence, it is important to incorporate Russia into the World Trade Organization as well as into the Organization for Economic Cooperation and Development (OECD). Second, it will require a strenuous effort to lower barriers and enhance cooperation among the North Atlantic Free Trade Agreement (NAFTA), the European Union (EU), and the Eurasian Economic Community. At its most elemental level, however, economic security means freedom from crises threatening a nation’s fundamental economic well-being. And as the recent travail of Greece and other troubled EU countries demonstrates, effective responses at this level are, in the first instance, likely to depend on institutions such as the EU and International Monetary Fund, although mutually reconciled national economic initiatives are also important.

Energy, in contrast, presents the entire region with both an opportunity and a challenge. Thought of as a critical dimension of a Euro-Atlantic Security Community, securing the energy future of supplier, consumer, and transit countries by seizing this opportunity and meeting this challenge takes on a vastly greater significance than do energy issues treated narrowly and in their own terms.

The opportunity is new. As the Arctic ice cap recedes, the Arctic region, containing an estimated one-third of the mean estimate of the world’s undiscovered gas and 13 percent of undiscovered oil, opens the way to what could be one of the most important cooperative projects in the Euro-Atlantic space. The Arctic is where three of the twenty-first century’s greatest challenges intersect: the pressing need for hydrocarbon resources, climate change, and the tendency to securitize the areas containing these resources as well as the two critical passages to them. Hence, the Arctic is in large part a microcosm: that is, within the Euro-Atlantic region, it is a test of these countries’ capacities to deal constructively not only with each of these three large challenges but with the synergy among them.

As for the other half of the picture, when thinking of energy security as a critical component of a Euro-Atlantic Security Community, the challenge is to mitigate the uncertainties that give rise to tensions between states and to reduce the market inefficiencies that jeopardize the benefits of trade to both suppliers and consumers. The states of the Euro-Atlantic region should strive jointly to foster an environment that ensures all consumers secure and cleaner sources of energy and producers a predictable and relatively stable market, with an economically optimal distribution network, equitable access for investment in all aspects of the development, supply, processing, and sale of gas and oil, and standardized rules for all players. If they can achieve this,

North America, the EU, Russia, and its neighbors will not only have provided a vital underpinning for the larger common enterprise but also a powerful, stabilizing anchor in an increasingly unsettled global energy setting.

Not that achieving this level of energy cooperation will be easy. Many obstacles stand in the way, and a sizable number of them center on the Russian-EU energy partnership, the axis of energy relations within the larger Euro-Atlantic region. While the EU-Russian energy equation is complex and many sided, both the challenges and the opportunities surrounding the flow of gas from Russia and the Caspian region to European markets remain at its core. For that reason, we put the issue of gas flow at the center of this paper's recommendations when addressing the potential impediments energy issues may place on the effort to build a Euro-Atlantic Security Community.

Most concerns over supply interruptions have been about gas. Gas has dominated the EU's and Russia's differing approaches to market liberalization. Gas has embodied the EU's difficulty in creating an internal energy market and in developing backup measures to deal with energy emergencies. Dueling pipeline projects—such as South Stream and Nabucco—feature gas. And the sale and transport of gas remain largely nontransparent spheres in East-West energy trade, which impedes the emergence of an integrated and more efficient European gas market.

**Energy presents the entire region with both an opportunity and a challenge.**

But gas, which is expected to occupy a growing share of Europe's energy consumption over the next two decades, also represents an area of opportunity—a critical arena testing the will and capacity of governments to make energy cooperation a key dimension of their efforts to create an integral Euro-Atlantic Security Community able to lead in meeting the new century's major challenges.

In saying this we are mindful of two important realities. First, energy relationships within the Euro-Atlantic region are not self-contained but instead deeply enmeshed in a global energy environment whose contours are ever more complex. Indeed, energy security in the Euro-Atlantic region can only exist in a sustainable global energy system. This is a system in which leadership from the Euro-Atlantic states will be essential, but in which the crucial trends shaping it will unfold in regions far beyond these countries' borders. Second, gas, central as it is within the EU-Russian context, is also part of a complex Euro-Atlantic energy picture with considerable uncertainty surrounding the role of alternative energy sources and the evolving character of both the North American and European energy markets.

As for the second reality, the ambiguity among key Euro-Atlantic energy trends creates a mix of imprecise challenges and promising but elusive opportunities. On the one hand, the uncertain future of nuclear power, the growing impact of unconventional gas, and the emergence of increasingly interconnected regional gas markets, along with a rising global demand for gas, cloud the precise issue the policies of the Euro-Atlantic states should be designed to address. These uncertainties magnify the challenge of finding a compromise that will meet the needs of the parties throughout the energy value chain. On the other hand, hydrocarbons, whether the opportunity they represent in the Arctic or the difficulty posed by their offshore exploitation, offer a historic basis for cooperation—if the states of the Euro-Atlantic can locate the will to act on it.

## The Arctic: A Euro-Atlantic Security Opportunity

The Arctic should be thought of as an auspicious chance to begin building the groundwork for a Euro-Atlantic Security Community. In an energy future plagued by uncertainty, the enormous hydrocarbon wealth of the Arctic presents a critical cohort of countries within the Euro-Atlantic region with a grand opportunity. Given both the technical challenges in recovering the oil and gas and the extraordinarily delicate environment that contains them, these states have powerful reasons to cooperate in opening this new frontier.

To do so, however, the countries of the Euro-Atlantic region, and first among them the Arctic littoral states (Canada, Denmark, Norway, Russia, and the United States) and other members of the Arctic Council (Finland, Iceland, and Sweden), must find ways to collaborate in addressing five core challenges:

- **First**, to achieve peaceful, legal resolution of claims to the hydrocarbon resources
- **Second**, to meet the technological challenges in procuring and transporting the hydrocarbon resources
- **Third**, to protect the Arctic's fragile ecology
- **Fourth**, to create the institutional wherewithal by which to effect these goals
- **Fifth**, to ensure that the Arctic does not become a new arena of military competition

In framing these challenges, it is important—as it is in the larger area of gas and oil trade—not to exaggerate the dangers or underestimate the opportunities. Neither the risk that competing claims to hydrocarbon resources will be a major source of tension nor the risk that the military preparations currently undertaken by many of the Arctic states need lead to a security competition should be overdrawn. Nor, by the same token, should the opportunity to cooperate in overcoming the technical obstacles to developing the hydrocarbon resources, protecting the Arctic's fragile ecology, building effective institutions to advance these goals, or safeguarding the indigenous people in the region be overlooked.

Achieving the first objective, **ensuring an equitable and noncontentious resolution of claims to the resources**, should not be difficult. Estimates are that the bulk of the oil and gas is distributed one-third on land, one-third on the continental shelf, and one-third on the open ocean seabed. Hence, title to roughly two-thirds of these resources is uncontested. For those in areas where continental shelf definitions remain unresolved, the UN Commission on the Limits of the Continental Shelf serves as the commonly accepted arbiter, and the process for asserting claims under the UN Convention on the Law of the Sea (UNCLOS) remains the commonly accepted norm. Moreover, where boundaries overlap, countries have demonstrated an ability to reach bilateral agreements on sharing, such as the accords between Norway and Iceland over the Dreki field and recently between Russia and Norway over the Barents Sea. The challenge will be to ensure that these mechanisms and the spirit of accommodation continue to prevail as development of the region intensifies.

Overcoming **technological and cost obstacles to the exploitation of Arctic hydrocarbons** poses a far larger challenge. Powerful ice flows, damage to the seabed scraped by deeper ice structures, the icing of rigs and ships, and violent storms—all of which will be accentuated by ongoing climate change—create obstacles to the exploitation of the Arctic. These roadblocks argue against attempts at exclusive national development and for pooling resources aimed at cooperative development. The engineering and construction advances that will be needed to operate in much of the Arctic exceed the existing capabilities of most companies and

countries, and suggest that, without an open regime that encourages joint efforts, getting these resources to market will be very slow. And this is before considering the further importance of cooperation in dealing with either the onshore damage to pipelines and infrastructure from melting permafrost or the potential costs of addressing the as-of-yet-unknown factor of the quality of the gas and oil offshore in the Arctic.

The **ecology of the Arctic** is among the most fragile anywhere on the globe. The production and transport of oil and gas from the region require efforts and protocols for protecting the environment beyond anything yet achieved by the members of the Arctic Council. Several of the working groups under the Arctic Council are carrying out important research on and monitoring of the rates of organic pollution in the region, stratospheric ozone depletion, and other threats to Arctic biodiversity, but neither the littoral states nor the Arctic Council have yet begun to develop a regime and mechanisms adequate to the looming challenge. One of the world's most important commons—and one of its most vulnerable—the Arctic should be among the Euro-Atlantic region's most important joint projects. The challenge is already upon the countries of the region, and will only grow when Arctic oil and gas begin to flow.

Several **institutions** addressing different dimensions of Arctic development exist, including the Arctic Council, with six expert working groups tasked with assessing threats to the environment and the life of indigenous peoples; the Barents Euro-Arctic Council that deals with the economic and social development of the region; the EU's "northern dimension" that touches on some Arctic aspects; and UNCLOS. All, however, are still rudimentary and weak when dealing with issues in this area. Article 298 of UNCLOS allows each of the 150 parties (the United States is not one) to decline to accept any method for resolving disputes to which it objects. The Arctic Council has no binding decisionmaking power in any area, nor do members have to participate in programs created by the body. The Barents Euro-Arctic Council also has no enforceable decisionmaking power.

At the Arctic Council ministerial meeting in Nuuk, Greenland, in May 2011, the eight countries did agree to establish a standing Arctic Council secretariat and accepted the first legally binding agreement negotiated under council auspices, an agreement on cooperation in air and sea search and rescue. This is a start, but much remains to be done.

Finally, **avoiding military competition** in the Arctic warrants attention now, in the early stages, as many of the Arctic states take military steps to protect their interests in the region. There is already a tendency in the media to treat the formation of military units for Arctic contingencies, naval exercises in the area, and statements from Russian, Canadian, Norwegian, and North Atlantic Treaty Organization (NATO) military officials on potential regional threats as signaling an incipient military competition. Thus, while most defense-related initiatives on the part of the Arctic states are precautionary and normal measures to protect legitimate national economic and security interests, these states should consciously focus on ensuring that these initiatives contribute to mutual security in the Arctic, not to military rivalry.

**The Arctic should be thought of as an auspicious chance to begin building the groundwork for a Euro-Atlantic Security Community.**

## EU-Russian Gas Relations in Perspective: Challenges and Opportunities

While the Arctic region represents a seminal opportunity to move closer to a Euro-Atlantic Security Community, other aspects of the energy equation are more open-ended. Given the elaborate interdependence of European gas and oil consumers and Russian and Caspian gas and oil suppliers, if these issues are addressed constructively, a basis should exist for cooperation here as well. Still, in contrast to the four decades before, over the last ten years, the tension stirred by gas cutoffs and the jousting over pipeline routes demonstrate energy's potential role to impede efforts to draw the countries of the Euro-Atlantic region together. Hence, in contemplating a path to the larger goal, a minimum, first-order objective must be to minimize the possibility of energy relations adding obstacles to what inevitably will be a difficult road.

The energy ties among the countries of the Euro-Atlantic region are many and complex, and none more so than between the members of the EU and Russia. Russia supplies 31 percent of EU gas imports, 27 percent of crude oil imports, 24 percent of EU coal imports, 30 percent of total EU uranium imports, and is the EU's third-largest supplier of electricity. In turn, the EU is not only easily Russia's largest trading partner, but it is the market for 88 percent of Russia's oil exports, 70 percent of its gas exports, and 50 percent of its coal exports. Today, 40 percent of the Russian budget derives from the export of raw materials to the EU.<sup>1</sup> Thus, to characterize the EU-Russian energy relationship as already one of dense interdependence is a mild understatement.

Over the decade since Russian president Vladimir Putin, French president Jacques Chirac, and Italian prime minister Romano Prodi proposed the EU-Russia Energy Dialogue, the two sides have done much to develop and address an elaborate agenda dealing with the long-term forecasting of alternative energy futures, factors aiding or hindering the reconciliation of their energy markets, and efforts to collaborate in promoting enhanced energy efficiency. Mechanisms are in place that permit the two sides to explore issues affecting the gas and oil sectors, coal trade, electricity systems, and nuclear power, with each presenting different challenges. And a wide variety of cooperative efforts are under way, ranging from joint clean coal improvements in Russian utility plants to the exploration of steps needed to create synchronous or, before that, asynchronous interconnections that allow electricity trade between Russia and the broader European market; from cooperative nuclear safety projects to "energy bridges" comparing management experiences in Kaliningrad, Lithuania, and Italy. Working groups exist that are focused on infrastructure projects—including pipelines, high-voltage lines, underground gas storage, liquefied natural gas terminals, and liquefaction plants—and on methods, instruments, and models for developing more precise long-term scenarios predicting energy supply and consumption.

Thus, at the core of Euro-Atlantic energy relations, the EU and Russia are fashioning a solid foundation for promoting what the recent Russian proposal for a Convention on Ensuring International Energy Security urges—a commitment "to ensure a predictable and stable joint energy balance by coordinating . . . energy strategies and policies, including projections and planned measures relating to the prospects of supply and demand, the development of energy infrastructure, the legal framework in the energy sector, as well as the transparent, predictable and efficient organization of energy markets."

Trade in gas, more than any other area of EU-Russian energy cooperation, is suggestive of the distance still to be traveled before energy becomes a buttress for a Euro-Atlantic Security Community rather than a barrier. During the Cold War, when the first pipelines for Soviet gas were laid, the resource played a significant role in alleviating Europe's dependence on Middle East oil. As an important component in Europe's energy balance,

Soviet gas served as a bridge between two divided blocs and a tangible manifestation of their interdependence. Subsequently, during the energy shortages of the 1990s, Russia remained a reliable energy supplier for the European continent.

Today, as Europe continues to search for a cost-effective response to climate change, Russia's abundant gas reserves may well provide the best available answer. Financial constraints in the aftermath of the global recession together with limited commercial attractiveness cloud the prospect of a rapid transition to renewable sources of energy. The nuclear disaster at Japan's Fukushima plant and Germany's recently announced plan for a nuclear phaseout by 2022, have only magnified the ambiguities surrounding Europe's future energy balance. Meanwhile, the political upheaval in the Middle East adds to the uncertainty over gas (and oil) supplies as vividly illustrated by disruptions in Libyan gas and oil exports, making Russia still more important as a reliable alternative supplier.

More recently, however, most of the tensions in a highly complex energy relationship have featured gas rather than other fossil fuels, despite the EU's rapidly increased demand for Russian oil and coal over the last ten years. The likely explanation begins with the **lack of efficient markets** in the case of gas. Put simply, unlike the case of oil and coal, a truly global market does not exist for trade in natural gas. Instead, regional markets dominate and they come with significant imperfections. They also vary in terms of their maturity, organization, and market structures. In 2010, only 31 percent of the gas produced worldwide was traded across borders, compared with 66 percent of oil.<sup>2</sup> This reflects the relative difficulty inherent in moving natural gas from one point to another.

Europe's own slow progress in building an efficient and integrated gas market constitutes another challenge. Its current infrastructure is far from allowing the optimal distribution of gas across borders. Central and Eastern Europe, in particular, lack anything approaching a competitive market. Their supply sources remain limited and regulatory institutions are underdeveloped. A pan-European regulatory oversight arrangement is still at an early stage of development. It remains to be seen whether the EU's third energy package will successfully address these remaining obstacles to the creation of a single European gas market.

To a degree, disagreements between Russia and the European Union are an outcome of these market imperfections. Nevertheless, this is only one part of the story. Four additional factors contribute to tensions in Russian-EU gas relations and inhibit progress toward a more efficient gas market across Europe as a whole.

First, on both sides there has been a tendency to politicize the gas relationship. On the one hand, Gazprom has understandably stepped up pressure on its clients in the former Soviet space to pay market prices. Commercial considerations have been a significant part of this decision, but the absence of clear criteria justifying the pace and extent of the price increases has bred a suspicion that Moscow utilizes gas as a political tool. On the other hand, Gazprom has received mixed signals from the Europeans when it seeks to operate in the downstream European market, something it sees as essential in minimizing its long-term risks as Europe's gas supplier. Europe's resistance is viewed by the Russian side as a case of a "political phobia" on Europe's part about Russia. Competing pipeline projects in southern Europe have constituted another source of tension in EU-Russian energy relations.

Second, Russia and the European Union conceive of an efficient continental gas market differently. In the third energy package, the European Commission has insisted that market rules should apply equally to all companies. From Moscow's perspective, however, this is legislation aimed at limiting Russia's further penetration into the European gas market. Russian officials argue that exemptions are considered for Nabucco, a competing pipeline project, and have requested a similar treatment for Gazprom-led projects.

Third, with the demise of the European Energy Charter Treaty as a potential mechanism for resolving disputes between the EU and Russia, the continuing lack of an alternative mechanism makes disagreements harder to resolve. European capitals have criticized Moscow (along with others) for failing to ratify the Energy Charter. Russia, meanwhile, has blamed its European partners for ignoring its numerous proposals for an alternative solution. Given the magnitude of the Russian-European energy trade, commercial disagreements are inevitable, but their effects will be more damaging in the absence of a suitable mechanism for resolving them.

Finally, the EU and Russia would probably have had fewer disagreements if the competitive structure and transparency of their respective gas markets were more alike. Gazprom's monopoly position in transportation and exports remains unchallenged. With limited competition, Russia's gas sector will continue to be burdened by inefficient contracting practices and high transaction costs. Questions remain about Gazprom's ability to develop its resources efficiently and in a transparent manner, exacerbating Europe's energy security concerns. That said, Russia's gas market is changing: independents account for a growing share of gas output, while domestic prices are being gradually elevated to meet marginal cost. These changes promise to help ease European concerns over the noncompetitive aspects of the Russian gas market, while creating major opportunities for both the Russian gas sector and partners abroad.

**Managing short-term disruptions** has constituted another major challenge in the European-Russian gas relationship. Russian-Ukrainian disputes on gas transit during the winters of 2006 and 2009 severely damaged Europe's perception of the security of gas supply from Russia. The damage was limited to a few countries in Eastern Europe, but the sense of insecurity spread widely.

In seeking a solution, however, neither the magnitude of the challenge nor the cost of addressing it should be overstated. Building new links and storage facilities among EU member states will enhance their ability to withstand future potential short-term disruptions, though at the cost of maintaining sometimes unnecessarily large spare capacity. Efforts in this direction are under way, and some of them have already borne fruit. Were another crisis to occur today, Bulgaria for instance, one of the countries most affected by the cut-off in 2009, could receive shipments through an interconnector with Greece. Additionally, with the advent of the Nord Stream pipeline at the end of this year, Europe's ability to deal with supply disruptions will be further enhanced. Central and eastern European countries, however, will need to be better connected to their western neighbors in order to benefit from these measures, ensuring that Nord Stream does not provide energy security to some while bypassing them. Finally, following the 2009 crisis, Russia and the EU decided to establish an early warning mechanism to prevent and better handle future crises. Its effectiveness in easing the impact of the Belarus gas transit crisis in June 2010 shows that this new tool is a significant step in the right direction.

**Ensuring long-term investments** is critical in building a secure Euro-Atlantic energy environment. While short-term disruptions can be managed at limited costs, it is long-term shortages that will most profoundly threaten both the energy balance and economic development in the Euro-Atlantic region. In this context, long-term underinvestment in Russia's gas sector remains a major energy security concern in the minds of many, but to what extent is the problem real and, if real, which of its sources need to be addressed?

Underinvestment in Russia's gas sector does constitute a challenge. Although lately it has been stressed less because the recent economic crisis has left global energy markets with a surplus of gas, only a few years ago Russia's ability to meet its growing domestic demand and external commitments was widely questioned. For years, Russia covered the gap between its commitments and its actual output through gas imports from Central Asia. Now, Russia's ability to generate adequate investments in its gas resources has become increasingly important as Soviet legacy fields, particularly in West Siberia, are in decline and the country must develop a new generation of gas fields.

Two principal challenges must be faced to avoid a shortfall in Russian investment in its gas sector. First, Russia might well consider improving the investment environment. In the past two decades, the absence of competition in the Russian gas market has inhibited its growth and raised the cost of investments. Gazprom has lagged behind most independent producers and oil companies in ramping up production, a function of its lower efficiency. Gazprom's transport monopoly has further constrained the growth in gas production by complicating contractual arrangements between the monopolist and independents. Russia's legislation on foreign investment in its strategic sectors constitutes another obstacle to a more competitive domestic gas market and an impediment to the timely inflow of foreign capital and technology.

Second, investment in Russian gas development is also a function of security of demand. In the past, this has been less of a reason for underinvestment, as long-term contracts continued to ensure upstream and infrastructure development. However, Russian gas industry representatives now see a greater cause for concern. Even though most baseline projections envision growing demand for gas imports in Europe for the next two decades, increasingly, leading institutions, including the European Commission, have offered alternative scenarios. The EU's Energy Efficiency Plan 2011, for instance, projects that gas imports will stabilize by 2020, and gradually start declining after 2025.<sup>3</sup> Boldly defined targets about renewable energy use and improved energy efficiency in Europe naturally raise questions about the amount of gas needed from Russia. To this might be added the longer-term uncertainties surrounding Europe's future demand for conventional gas if the development of shale gas accelerates. Recent differences in Europe's and Russia's approaches to gas market liberalization have further aggravated Russian concerns for security of demand, prompting Gazprom to warn that this may contribute to an investment shortfall.

Still, long into the future Europe will continue to be Russia's principal gas export market. Slow progress on an export deal with China and Beijing's increasingly diverse base for gas imports have limited Russia's ability to redirect a significant volume of its gas in this new direction. Furthermore, Gazprom entered the liquefied natural gas (LNG) business only recently and its ability to compete in this niche market will remain modest for some time. As a result, Russia finds itself in the delicate position of watching a new wave of liberalization in Europe's gas market, while it remains slow to adapt to it and unable to find comparable alternative markets. This will continue to complicate long-term investment decisions in Russia's gas sector.

Long-term investment also offers potential for better integrating the EU's and Russia's energy markets and easing the transition to a common energy market. In this respect, the EU states might consider creating a more favorable environment for Russian investment in oil, gas, power, and other energy assets on their territories. Many Russian energy companies, when seeking to invest in these countries, particularly in Eastern Eu-

rope, still face practical and political obstacles. Whatever the merit underlying the reasons for this resistance, the simple fact is that, unless these misgivings are set aside, advancing the energy security agenda by developing integrated, well-functioning energy sectors in the Euro-Atlantic region will not be possible. Facilitating the broader integration of the European and Russian power grids would also be a powerful step toward creating a common energy market.

**Ensuring secure transit** for natural gas has presented two major challenges. In the short term, disruptions associated with transit countries, Ukraine in particular, have illustrated that energy security for both suppliers and consumers could be easily jeopardized. The longer-term problem arises when too little investment goes into existing and aging infrastructure while new transit pipelines are being delayed in part due to disagreements with host transit countries. Energy security on the European continent will benefit from investment in upgrading old infrastructure and building new transit pipelines for Caspian and Middle East gas. Transit countries are more likely to play a constructive role if their interests, and in the case of LNG shipments through territorial waters, their environmental concerns, are also taken into consideration. It is important, however, to ensure that a reasonable economic return and safety remain their ultimate and only objectives.

Finally, despite increased attention to the issue in the EU-Russia Energy Dialogue, across the broader Euro-Atlantic region, too little has been done to generate the advances in **energy efficiency** necessary to meet urgent carbon dioxide emission standards. Europe itself has yet to find a cost-effective approach by which to cut greenhouse gas emissions by 20 percent below 1990 levels by 2020. Improving energy efficiency constitutes its least expensive option, although that alone will not be sufficient to meet the 2020 target. Promoting the increased use of gas (liquefied and compressed natural gas) not only in power generation but also in the transportation sector (automobile, rail, waterborne) offers both one of the most cost-effective options for lowering carbon (and hard particle) emissions and an opportunity to enhance cooperation between European and Russian gas companies. It would entail creating required infrastructure, including collaboration in the European Blue Corridor initiative, and European and Russian cooperation in manufacturing natural gas-fueled means of transportation.

Twenty years after the collapse of the Soviet system, Russia's economy remains among the world's least energy efficient. Realizing the enormous opportunities associated with saving energy, President Dmitry Medvedev has set the goal of reducing the energy intensity of the Russian economy by 40 percent by 2020. Should Russia succeed, it can save annually 240 billion cubic meters of gas, 89 million tons of coal, and 43 million tons of oil, according to a World Bank study.<sup>4</sup> Both Europe and North America have a stake in Russia's success. For Europe in particular, its energy security would be considerably enhanced if through improved energy efficiency Russia were able to reduce domestic gas consumption and release some portion of the incremental saving for export.

In short, the challenges in European-Russian gas relations need not overshadow the large opportunities also present. As was the case during the Cold War, Russian gas can and should play a similarly positive role in the future. If the Euro-Atlantic region moves toward an increasingly integrated gas market and enhanced energy efficiency, while Europe and Russia successfully manage potential risks with regard to short-term disruptions and longer-term investments, energy cooperation can become an important component in building a Euro-Atlantic Security Community.

Add to this the large potentially positive effects of the August 2011 Exxon-Rosneft deal to develop jointly oil and gas fields in the Arctic's Kara Sea and to share stakes in deepwater Gulf of Mexico and onshore Texas oil fields. Cooperation in this form and on this scale contains in microcosm the essence of Euro-Atlantic energy

security. It should lead to extensive practical and technical bilateral cooperation in developing Arctic hydrocarbons. It creates reciprocity when pursuing access to resources. It embeds Russia's expansion into global resource markets in a partnership. And, if this cooperation deepens, it should encourage the partners to enhance the conditions allowing partnerships of this kind to flourish.

## Recommendations

Placed in a larger Euro-Atlantic context, all of the challenges discussed above put the stakes in a different light. If the goal is to transform the vast and vital Euro-Atlantic region into a genuinely common security space, and energy plays a critical role in that, then the balance between the benefits of compromise and the price that has to be paid to get it shifts markedly. Even fundamental, long-term adjustments that appear improbable today take on a different coloration when viewed from this broader perspective.

In contemplating what might be done to enhance energy security in the Euro-Atlantic region, it is important to begin with a realistic notion of the task at hand—one that does justice to its complexity but without exaggerating the obstacles to cooperation, the threats to national security, or the relevance of past shortcomings and conflicts. The barriers to making energy and, in particular, the gas trade a building block in a more integral Euro-Atlantic Security Community are not small, but neither are they, given adequate political will, insurmountable.

In pursuit of this larger goal, we divide our recommendations into two fundamental categories: (1) forms of cooperation essential in advancing the larger goal of building a Euro-Atlantic Security Community, and (2) steps to create a level of trust permitting progress toward the larger goal.

### Forms of Cooperation to Advance the Larger Goal

While there are a number of cooperative steps that would be useful in facilitating energy trade between the EU and Russia and other supplier countries, two areas of cooperation are particularly relevant to promoting the larger objective of a Euro-Atlantic Security Community: joint efforts in the Arctic and in promoting energy efficiency and lower carbon emissions.

#### *The Arctic*

If the Arctic is recognized as a potentially crucial opportunity to fashion a collective approach advancing the Euro-Atlantic region toward a more effective and integral security community, several bold steps are needed.

- **First**, the nations of the Arctic Council need to go beyond the monitoring function carried out by the body's existing working groups and develop effective protocols regulating the development of hydrocarbons commensurate with the level of environmental vulnerability in the Arctic. At the same time, they must strengthen existing institutions, including the Arctic Council, by giving them greater authority to effect comprehensive participation in collaborative undertakings, create an action agenda, and enforce agreed-upon regulations.

- **Second**, the nations with claims to the hydrocarbons in the Arctic should begin now collaborating on technologies that would be adequate to deal with oil spills in the region. (Current methods are inadequate in Arctic conditions, including in the presence of ice.)
- **Third**, the nations of the Arctic Council should launch a dialogue about the military measures each is taking to protect its interests in the region, including protection of the North and Northwest Passages, with the aim of achieving mutual security and avoiding military competition. This dialogue might well be under the ultimate auspices of the NATO-Russia Council.
- **Fourth**, the Obama administration should proceed with its stated intention to secure ratification of the UN Convention on the Law of the Sea. Apart from U.S. self-interest, it is important that all Arctic nations, of which the United States is one, operate under the rules of this convention.

### *Energy Efficiency and New Energy Technologies*

Enhancing energy efficiency and new energy technologies is an important goal for all countries in the Euro-Atlantic region. It is an objective directly related to meeting the imperatives created by the rapid increase in global energy requirements, climate change, and energy security. And it is a goal indisputably best served by international cooperation. For that purpose:

- Cooperation on improving energy efficiency should be, as urged in the EU-Russia Energy Dialogue, a high-priority component in the EU-Russian Partnership for Modernization as well as a major priority in the U.S.-Russia Bilateral Presidential Commission.
- The Euro-Atlantic states should also proceed to establish the EU-Russian Center for Energy Innovation and Energy Efficiency recommended in the 2000–2010 EU-Russia Energy Dialogue joint report, but this center should be expanded to become an all-Euro-Atlantic project.

### **Building Trust**

To facilitate this new level of cooperation, rebuilding full trust between Russia as an energy supplier and Europe as a major consumer is key. Re-creating confidence in the region's ability to work together to meet the energy and climate challenges that lie ahead should be addressed from several directions. First come the measures intended to demonstrate that all parties—as all have often proclaimed—are genuinely committed to creating efficient markets as a way of ensuring predictable supply at competitive prices. To this end:

- As EU members set about integrating their national markets through investment in infrastructure and adopting common regulations, serious effort should also be put into working with the Russian side to find creative and mutually acceptable measures that surmount or reduce specific discrepancies between the two energy markets. In short, the objective should be to bring the rules governing the two markets as much into line as possible, not simply to integrate one market into the other.

Despite positive moves by both Russia and the EU in the recent years, mistrust remains a reality. It should be addressed directly, realizing that progress will take time and will only come from positive experience. All parties should consider concrete steps to confront and dispel the impression that they perceive energy as a political instrument. These might include:

- Undertaking mutual obligations and a detailed backup plan as a part of the new early warning mechanism.
- High-level political support in both the EU and Russia should be given to the many concrete, specific ideas for improving the energy investment climate generated by the *bilateral* business-led Subgroup on Investment under the Thematic Group on Market Developments that has been an important part of the EU-Russia Energy Dialogue.
- Full commercialization of Russian oil and gas exports to former Soviet republics, not least as a step toward easing tensions with Russia's European partners.

1 European Commission Directorate-General for Energy, *EU-Russia Energy Dialogue: The First Ten Years: 2000–2010* (Brussels, Belgium: European Union, 2011).

2 BP, *Statistical Review of World Energy June 2011* (London: BP, 2011).

3 *Energy Efficiency Plan 2011, Impact Assessment Annex II*, Commission Staff Working Document (Brussels: European Commission, March 8, 2011).

4 World Bank Group, *Energy Efficiency in Russia: Untapped Reserves* (Washington, D.C.: World Bank Group, 2008).

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To move toward the goal of an inclusive Euro-Atlantic Security Community, a unique process was created in 2009 called the **Euro-Atlantic Security Initiative** (EASI) by the Carnegie Endowment for International Peace.

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