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The Common Foreign and Security Policy and the Security of Energy Supplies

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Executive Summary

The desire for a coherent European foreign policy has been present since the beginning of the modern European integration process in the 1950s. Over the past 50 years, this ideal has made slow but steady progress, as European countries have taken increasingly larger steps toward greater collaboration and solidarity in the realm of foreign and security policy. Soon after the fall of the Iron Curtain, the Maastricht Treaty enshrined the Common Foreign and Security Policy (CFSP) as the second pillar of the European Union. According to this Treaty, the CFSP is intended to address 'all questions relating to the security of the Union'.

In recent years, it has become apparent that there is little if any policy coherence on one vital component of the EU's security: secure, reliable and environmentally sustainable access to energy supplies. Unjust manipulation or interruption of energy supplies is as much a security threat as is military action (especially for the EU, which collectively imports 50 percent of its oil and natural gas). Successfully countering such threats necessitates that Member States stand together when dealing with other actors. However, Member States have pursued a multitude of often-conflicting external energy policies that has served to increase the vulnerability of the EU as a whole. Framing energy security within the context of the CFSP will help Member States to 'speak with one voice' on this critical issue.

While security of supply is a concern given the nature of regimes and instability in the Middle East, Venezuela and Africa, Russia poses a unique and especially pressing challenge to the EU's quest to develop a coherent, strategic and focused CFSP. Since last year's Russian gas cut-off to Ukraine, there has been increased awareness that dependence on Russia has increased Europe's geopolitical vulnerability. Up to this point, many European leaders have preferred not to discuss the geopolitics of energy, instead delegating this portfolio to their economy ministries. However, their Russian counterparts have not minimised the importance of this issue, instead preferring direct involvement at the highest levels. Given the substantial role of the Kremlin in devising a political energy strategy, a Russia-focused energy security needs to be discussed at corresponding levels within Europe—especially in a foreign and defence policy context.

Establishing a common strategy is especially vital in light of the fact that a *de facto* gas cartel—led by Russia and now including Iran and Algeria—may be emerging. Iran made such an official proposal to Russia on January 29th, which President Putin called 'an interesting idea'. If these three states form an alliance—either formal or informal—it will present an even greater challenge to the EU. The dangers of this possibility have already been noted; in November 2006, a NATO study warned of attempts by Russia to set up a 'gas OPEC'. Although given the nature of the gas trade, such an organisation would not have the same ability to affect prices as does OPEC itself; the gas cartel would nonetheless strengthen Russia's already considerable leverage over Europe—especially if it

encompassed Qatar, Libya and the Central Asian states.

This Study draws upon official recommendations of the European Commission and the HR/SG of the CFSP on establishing a coherent energy policy. Specifically, it analyses and builds upon the suggestions laid out in last summer's joint paper entitled *An External Policy to Serve Europe's Energy Interests*. The paper has already been favourably received by the European Council; this reaction, along with recent statements by Commission officials such as Energy Commissioner Andris Piebalgs, indicates growing support for a common energy policy.

Yet, a number of challenges must be overcome before the goals described by the European Commission can be accomplished. This Study outlines the limited efforts towards incorporating energy security within the CFSP framework that have been made thus far; it also assesses the methods by which further progress can be made. The promotion of European energy security does not always align neatly with EU's broader policy priorities in third countries, such as encouraging responsible governance and the rule of law, promoting free trade and preventing human rights violations. At the same time, energy, security and internal reform are interlinked, and require careful balancing. That is why these three sets of interests need to be considered within the same framework.

This Study has four sections. The first section discusses why and how energy security needs to be incorporated into the CFSP; it does so in four sub-sections. It begins by describing the evolution of the CFSP and of the EU's approach to energy security. It then explains why diversification away from Russian gas needs to be a key element of the CFSP, and proposes the Caspian Sea region (together with several non-Russian-controlled export pipelines) as an alternative. Third, it explores the possibility of developing alternative supply sources within the framework of the European Neighbourhood Policy (ENP), which encompasses the Mediterranean, Caspian and Black Sea regions. Fourth, it explores the geopolitical considerations of relying on hydrocarbon supplies from the Middle East and North Africa.

In the second section, the Study analyses the suggestions laid out in the paper entitled *An External Policy to Serve Europe's Energy Interests*. In the third section, recognizing that the geopolitical risks of dependence cannot fully be mitigated by supply diversification, the Study stresses the eventual necessity of a shift to alternative technologies. This shift may bring about unprecedented alliances with a variety of groups ranging from environmental NGOs to multilateral organisations to key energy consuming states such as the US, China and India.

In the fourth and last section, the Study presents recommendations for expanding the CFSP to incorporate an energy security policy that responds to a changing political and security environment, while balancing longstanding CFSP priorities set out in the Treaties.

1. THE NEED FOR A COMMON EUROPEAN FOREIGN POLICY ON ENERGY

1.1. The Evolution of the Common Foreign and Security Policy

Throughout the history of European integration, progress on foreign policy has consistently lagged behind that made in the sphere of economic policy. The reason for this difference lies at the heart of the European concept of sovereignty. While willing to yield control of safety regulations or customs laws, states have jealously guarded their prerogatives in relations with other states. Yet despite this general reluctance to surrender competencies in foreign policy, the Common Foreign and Security Policy is currently enshrined as the 2nd pillar of the European Union.

While the authority and effectiveness of the CFSP has steadily increased since its creation by the Maastricht Treaty, EU-level coordination in the realm of foreign policy remains considerably lower than in economic and social policy. Furthermore, it has almost completely excluded the issue of energy security. Questions regarding the security and sustainability of energy supply were left to individual Member States and to the invisible hand of the market. It is only recently that debate began focusing on an EU-level energy strategy.

In November 2000, the European Commission released a Green Paper on Energy Security that highlights Europe's growing dependence on external energy sources—specifically, oil and natural gas. It forecasts that by 2030, the EU would come to rely on foreign suppliers for over 70 percent of its total energy. Noting the increasing integration of Member States' economies—and the crucial role that energy plays for a state's economic well-being—the Commission recommended that a European-level strategy be devised.

Yet despite the warnings of the Commission, little movement was made towards the establishment of such a strategy. The next notable step was taken in December 2003, when the European Council approved the first European Security Strategy. This document, drafted by the CFSP office, argues that threats to the Union extend beyond traditional, military dangers. It specifically identifies Europe's energy dependence as a 'special concern' for the EU.

Groundbreaking as it was in its assessment of the threat environment, the European Security Strategy nonetheless only briefly discussed the issue of security of external supply. And although the issue of more coordinated EU-level action was raised by individual Member States—particularly new members Poland and Lithuania—these concerns did not resonate loudly for much of the Union. As 2004 and 2005 passed, calls for a reassessment of EU energy policies began to grow louder, culminating with the decision made at the October 2005 European Council to commission a comprehensive draft European energy policy, a decision that led to the Green Paper of March 2006.

However, it was the Ukrainian gas crisis in January 2006 that catapulted energy security to the forefront of the EU agenda. A price dispute between Russia and Ukraine led Moscow to halt its natural gas deliveries to Ukraine on January 1. Since the gas pipelines crossing Ukraine carry supplies destined for EU markets, this shutdown resulted in significant supply disruptions for several Member States. Consequently, more and more European leaders began calling for the development of a coherent EU energy policy.

The European Council endorsed the recommendations of the Commission Green Paper that month, and announced its plans to adopt a European Energy Policy at its March 2007 meeting. It called for input on crafting such a policy, requesting that the Commission prepare a document outlining a specific plan. This plan, which was delivered to the Council on 10 January 2007, details a number of concrete steps the Union should take to establish a common energy policy.

A key aspect of this recently released document, entitled *An Energy Policy for Europe* ([1]), is its emphasis on a greater streamlining of external policies regarding energy security. To be sure, solving Europe's energy challenges requires coordination of internal strategies. However, both the gas crisis of 2006 and the oil crisis of January 2007 involved a disagreement between two non-EU countries—Ukraine and Russia and Belarus and Russia, respectively—and yet their effects were felt by several Member States.

In addition, several EU Member States have had the misfortune of directly enduring similar disruptions. Disputes between Russia and the Baltic states have several times led to the halt of pipeline deliveries of oil. In 2003, Russia ceased supplying oil via pipeline to Latvia's Ventspils Nafta export facility. This embargo, which followed Riga's unwillingness to sell Ventspils Nafta to a Russian energy company, continues to this day. More recently, in July 2006, Moscow shut down a pipeline supplying Lithuania's Mazeikiu Nafta refinery, which is the largest company in Lithuania and one of the biggest oil refineries in Central and Eastern Europe. Following what has by now become a familiar pattern, this action came after a Russian company failed to obtain the energy infrastructure it coveted. Yet, unlike during the Ukraine crisis, the reaction from Brussels to these events has been rather muted.

There were two key reasons for this relative lack of response: First, as the supply interruptions were not felt beyond the countries that experienced the cutoff, many EU members erroneously considered them 'commercial disputes', and declined to confront Russia. Second, since the core Member States had never experienced such treatment, they refused to believe that the matter was a geopolitical one—in many cases, the prevailing belief was that the new member countries were indulging in historical grievances, rather than expressing concerns relevant to the EU as a whole. At the heart of these viewpoints was a failure to recognise that a third party (Russia) was utilizing a classic 'divide and conquer' strategy between Western Europe and Central/Eastern Europe.

The growing dependence of the EU on external sources of energy demonstrates the need for greater solidarity at the EU level on issues of energy security. Effective, coherent foreign policy is crucial to ensuring a sustainable, competitive energy supply for the EU. In this light, the Commission/SG/HR has prepared a paper entitled *An External Policy to Serve Europe's Energy Interests* to advise the European Council on how the EU's foreign policy tools can best be utilised to strengthen energy security ([2]). Specifically,

[1] Communication from the Commission to the European Council and the European Parliament, 'An Energy Policy for Europe' - COM (2007) 1 final.

[2] Paper from Commission/SG/HR for the European Council, 'An External Policy to Serve Europe's Energy Interests', June 2006.

the paper considers the advantages of incorporating energy into the CFSP. There is no technical or legal obstacle to doing so, since the objectives of the CFSP are broad. They include: safeguarding the interests and integrity of the Union; promoting peace and democracy; and strengthening the security of the Union 'in all ways'. Clearly, maintaining secure, competitive and sustainable energy supplies falls within that mandate.

In the past, enhancements to the CFSP have typically been made only after international crises revealed its shortcomings. These signalled recognition that the existing institutional framework was not sufficient to deal with the challenges faced by the EU. Similarly, recent events have revealed the inadequacy of the EU's foreign policy in the domain of energy security. It is now time for the CFSP to be expanded to include a more robust and more coherent external energy policy.

1.2. Russia: The Challenge of Dependency

By virtue of its tremendous oil and natural gas reserves, Russia has a huge influence on Europe. It is the single largest source of energy for the EU, providing close to 25 percent of Europe's combined consumption of oil and natural gas. This represents over 30 percent of the EU's oil imports and 50 percent of its natural gas imports. There is no embellishment needed to illustrate Russia's primacy in the European gas market. Eleven EU members obtain more than half of their natural gas from Russia, while Finland and the three Baltic states rely on Russia for 100 percent of their total supply. Although Russia (and previously the Soviet Union) has provided Europe with oil and gas for years, recent events have raised doubts as to its reliability as an energy partner.

Moreover, in the past several years, Moscow has consolidated state control of energy producing and transporting companies, enabling the Kremlin to utilise its vast energy reserves as a tool of foreign policy. This re-nationalisation has been carried out primarily through Gazprom. Thanks to a series of mergers and acquisitions orchestrated by the Kremlin, Gazprom's barrels of oil equivalent reserves are larger than those of every *country* in the world except Iran and Saudi Arabia ([3]). Gazprom has control over the Russian gas pipeline network and consequently handles all Russian (and Central Asian) exports—directly or through wholly-owned subsidiaries. This preponderance of power would be troubling enough if that company were transparent, privately-owned and played by the rules of the free market—and Gazprom is none of these things. It is majority state-owned and has deep ties to the Russian government. Many of the company's executive management and board members also occupy (or previously occupied) key positions within the Kremlin.

A similarly incestuous relationship exists between the Kremlin and other large Russian energy companies, thereby making President Vladimir Putin the *de facto* CEO of the Russian vertically-integrated oil and gas industry. Putin has thus been able to exercise complete power in determining the conditions of Russia's economic relationships with energy producers and consumers. In Central Asia, producer countries such as Turkmenistan, Kazakhstan and Uzbekistan have little choice but to

[3] 'EU-Russia Energy Dialogue', Euractiv.com, 16 January 2007, http://www.euractiv.com/en/energy/eu-russia-energy-dialogue/article-150061.

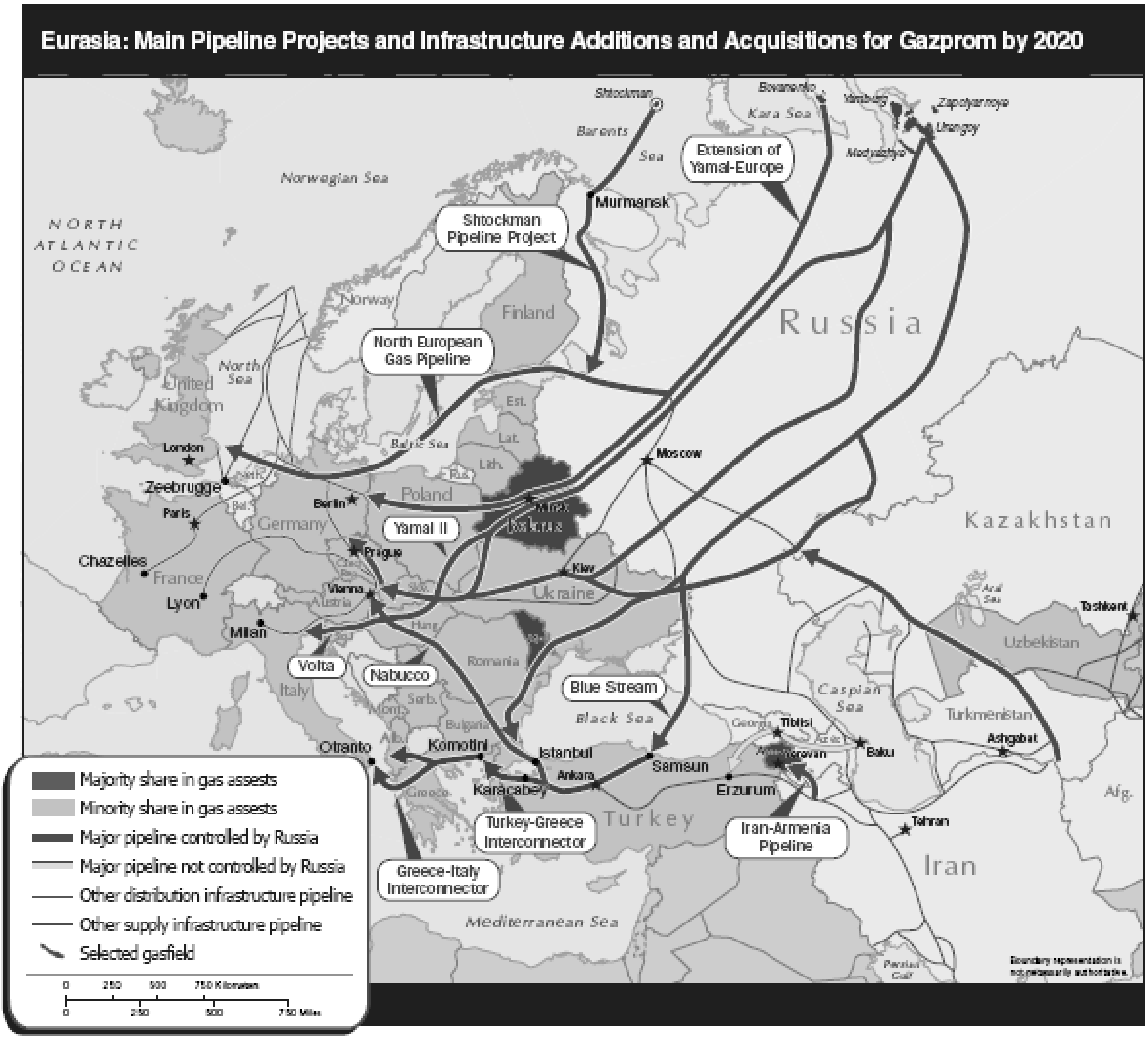
utilise Russian pipelines. Since these countries have no immediate transport alternatives, Moscow is able to purchase their supplies for prices well below world levels. Each time American and EU leaders have approached Central Asian governments about the prospect of constructing new export pipelines that do not involve Russia, the Kremlin has utilised tactics of 'persuasion' to bring a halt to such projects.

With the Kremlin eager to weaken pro-Western President Mikheil Saakashvili and to take over control of Georgia's gas infrastructure—which, due to its strategic location, is the key to the transport of Caspian gas to Turkey and Europe—Gazprom has seriously increased pressure on Georgia. Last winter, three consecutive explosions occurred which interrupted the gas and electricity for Georgia. During a period when the country recorded the lowest temperatures in a decade, Georgians had no heat for two weeks. Gas supplies to Georgia returned to normal only when Russian ally Armenia (whose supplies transit Georgian territory) had just one day's reserves remaining in stock. In September 2006, following a political incident in which Georgia expelled a number of Russian spies, Gazprom announced that the price of natural gas for the Caucasian state in 2007 will be more than double than that of 2006 ($230 per thousand cubic metres (tcm) rather than $110). Gazprom claimed that it is only charging a market price; however, political realities and past practices belie this claim. First of all, there is no internationally accepted 'market price' for gas. Moreover, in the past, Gazprom has often used price hikes as a lever to pressure countries into selling energy assets. Armenia, for example, pays only $110 per tcm; however, that preferential rate was gained only at the cost of allowing Gazprom to acquire a significant portion of the country's energy infrastructure.

Azerbaijan has also come under great pressure. Soon after gas production began in the Shah Deniz field on November 10, 2006, Russian officials privately told their Azerbaijani counterparts that if they sell Turkey natural gas at $120 (per agreement between Azerbaijan and Turkey), Russia would increase the price at which it sells gas to Azerbaijan to $230. Azerbaijan would not be able to justify internally purchasing gas for $230, while selling its own gas for almost half of that amount. In addition, Gazprom informed Azerbaijan that in 2007 it would only sell 1.5 bcm of gas, which is 3 bcm less than the amount sold in 2006. Faced with a possible shortage of 3 bcm, Azerbaijan would clearly come under great pressure to use the gas produced at Shah Deniz for domestic needs, rather than exporting it to Georgia and Turkey.

Moscow has further sought to increase its influence within Europe by acquiring significant stakes in the energy distribution companies and infrastructure of Member States, typically through its proxy Gazprom. The motivation behind Moscow's expansion was made clear in an April 2001 with Vagit Alekperov, president of the Russian oil giant Lukoil. Alekperov candidly remarked that he was 'certain that Bulgaria, whose oil sector is almost entirely owned by Russian companies, will not conduct an anti-Russian foreign policy in the foreseeable future' ([4]). For many years, Gazprom has owned significant portions of energy companies throughout the former Soviet Union; Gazprom is the largest or 2nd largest shareholder in the gas utilities of the three

[4] Hill, F., 'Beyond Co-Dependency: European Reliance on Russian Energy', *US-Europe Analysis*, The Brookings Institution, Washington, DC, July 2005.



Baltic states. To acquire further control over assets in Russia's poorer neighbours, Gazprom suddenly raises gas prices to levels that the governments cannot afford. Then, the Russian monopoly 'generously' agrees to sell them gas on credit. Soon, the government has accumulated significant debt to Gazprom and is unable to pay it back. Gazprom then does them the 'favour' of agreeing to erase the debt in exchange for control of the country's domestic pipeline system.

Moscow has already utilised this strategy in Belarus, Armenia and Moldova, and is in the process of implementing it in Ukraine.

Recently, Gazprom has been expanding its influence even further into the domestic gas distribution networks of Western Europe. For these richer European states, Moscow has pursued a different strategy. In the past year alone, Gazprom has signed deals with Eni (Italy), Gasunie (the Netherlands), BASF (Germany), E.ON Ruhrgas (Germany) and Gaz de France. Gazprom's deals fall into two categories, both of which are advantageous for Russia: asset swaps and distribution deals. The first type of transaction involves Gazprom (or one of its subsidiaries) acquiring interest in a Western gas distribution company in exchange for stake in a Russian energy project (Gazprom always retains a controlling interest, however). In the second type of transaction, Gazprom signs a long-term supply contract in exchange for the right to distribute Russian gas directly to West European consumers. The lack of cooperation within the EU allows Moscow to play European states against each other in order to secure more advantageous conditions.

Recently, at the Lahti Summit, European Commission President Jose Manuel Barroso once again underlined the interdependence of Russia and the EU. However, this interdependence only exists in theory; even though Russia exports the bulk of its energy to Europe, for which it obtains needed revenues, it has been fomenting divisions within Europe in order to prevent the EU from profiting from this theoretical leverage.

The disunity in European policy has also for quite some time allowed Moscow to pre-emptively block attempts to construct transport routes for Caspian and Central Asian oil and gas that do not involve Russia. In the late 1990s, Moscow decided to build a pipeline underneath the Black Sea—now known as Blue Stream—in order to supply Turkey with natural gas. This project effectively killed Western plans to construct a trans-Caspian gas pipeline from Turkmenistan to Turkey (and potentially to Europe). Similarly, in 2002, Russia frustrated EU efforts to construct an oil pipeline from the Black Sea port of Odesa into the heart of Europe. Moscow persuaded Kazakhstan—the intended source of supplies for this pipeline, known as Odesa-Brody—not to sell its oil directly to European consumers, but instead to continue shipping it through Russia. Maintaining a monopoly on energy transportation to Europe is of the highest importance to Moscow.

Today, the EU is eager to extend the South Caspian Gas Pipeline from Turkey into Europe, which would enable it to obtain Azerbaijani gas supplies via a non-Russian-controlled export route. In response, Gazprom has actively courted the transit countries whose support is critical for the completion of the European pipeline project, known as Nabucco. In the past year, Gazprom approached the Hungarian government about the prospects of constructing an alternative route that would supply Russian gas to Hungary, either for consumption there or distribution to other European markets. The proposed project—labelled the Southern European Gas Pipeline (SEGP)—would extend from the Blue Stream terminal across Bulgaria, Serbia, Croatia, and into Hungary. It would reach the same markets as Nabucco—but would supply them with Russian rather than Caspian gas. Just as with Blue Stream, the SEGP would kill demand for the EU-backed pipeline and increase European dependence on Russian energy.

Gazprom's lobbying tactics with Hungary are decisive, robust, and unified; in short, everything that the EU's tactics are not. The planned Nabucco pipeline would terminate in Austria, leaving Hungary as a mere transit country. The SEGP, however, would make Hungary—not Austria—a new energy hub of central Europe. This lucrative offer to Hungary perfectly illustrates Gazprom's strategy of 'divide and conquer'.

The deep divisions among EU members represent an even bigger disadvantage in dealing with Turkey, a burgeoning energy hub for both Middle Eastern and Caspian hydrocarbons. Moscow has lobbied hard to keep this country on its side, promising support for Turkish foreign policy goals in an attempt to 'win' Ankara's approval for pipeline export projects such as Blue Stream

II (two additional strings doubling its capacity), which would not only be used to supply Nabucco and the Turkey-Greece-Italy (TGI) gas pipelines with Russian gas (instead of Caspian gas), but would also kill efforts to resurrect the trans-Caspian gas pipeline project. Russia will not spare efforts in tempting Turkey with the prospect of acquiring leverage over the EU—through joining Russia in its energy supply control machinations.

If this situation continues, the EU will find itself in clear danger. Put simply, Europe's substantial dependence leaves it beholden to Russian interests. Particularly with regard to natural gas, there simply is no readily available alternative to the supplies the EU receives from Russia. Unlike oil, gas is extremely difficult and costly to ship via tanker; pipelines are the preferred method of transportation. Thus, if a supplier refuses to provide gas or charges an unreasonable price, the consumer cannot quickly or easily turn to another source. The state would have no choice but to accept the supplier's conditions or go without natural gas—an option that is all but unacceptable for many states. In addition to the economic disadvantages of this dependence, the broader foreign policy goals of EU states also suffer. Specifically, EU members are obliged to limit their criticisms of Moscow, lest they be given a raw deal at the negotiating table. Thus, Russia's record on transparency, responsible governance and human rights is allowed to stand unchallenged and unquestioned.

Dependency also erodes EU support for key allies in the South Caucasus and Central Asia. Georgia, Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan—all crucial energy producers or transit countries—have each been subject to intimidation by Moscow. Instead of standing up to this harassment, Europe's dependence compels its leaders to look the other way. This treatment has not gone unnoticed. In an op-ed published in the 19 January edition of the *Wall Street Journal*, Azerbaijani Foreign Minister Elmar Mammadyarov argues that greater EU involvement in the region will help protect states from 'market bullies' (i.e., Russia). He calls for an expanded energy partnership among Europe and the Caucasus states, rightly stressing the enormous benefits such cooperation would bring (see Section 1.3). In particular, Mammadyarov notes that European involvement in the region's energy sector would lead to drastically increased production, which, in turn, will lessen Europe's own dependence on that same Russian 'bully' ([5]).

The Kremlin is able to act as a bully in the Caucasus and Central Asia only because it enjoys near-monopoly control over the region's oil and gas export routes. Diversity of supply routes is just as important for the states of the Caspian Sea region as it is for the EU. Indeed, it was only because of the recently completed BTC and SCP lines that Azerbaijan was able to resist Moscow's pressure tactics of late 2006 (see Section 1.3). Taking definitive action on the creation of additional East-West pipeline routes would not only reduce the leverage Russia enjoys with the EU, but also that which it holds over the Caucasus and Central Asian states.

The EU's inability to take Russia to task for its illiberal market actions threatens European energy supplies in another way: it decreases efficiency in an already inefficient Russian energy industry. Russia's increasingly state-owned energy industry is largely unregulated. Without competitive

[5] Mammadyarov, E., 'Protect Us Against Bullies', *The Wall Street Journal*, 19 January 2007.

market forces, companies such as Gazprom have no reason to behave like commercially-minded entities. The absence of market stimuli is having detrimental effects on Russian productivity. Between 1998 and 2005, output in Russia's then-mostly private oil sector rose by 50 percent. During that same period, production in the gas sector (aka Gazprom) fell by 1.6 percent. Similarly, the increase in labour costs in the gas industry has far outpaced that in the oil industry ([6]).

Due to the extremely close relationship between the energy industry and the Kremlin, Russia's oil and gas companies can (and do) pursue strategies that make little economic sense but that serve the long-term interests of the Russian state—namely, ensuring European dependence on Russian energy supplies. The Blue Stream gas pipeline was not a commercial but a political project; Blue Stream II would also be a political one. As a result of this political decision, Turkish consumers had to pay some $243 per tcm—what some observers concluded was "the highest price paid for natural gas in the world." ([7]) Similarly, Russia's second major recent gas pipeline project, Nord Stream, will cost at least three times more than an overland alternative would have ([8]). Undoubtedly, German customers will soon have to pay higher prices for yet another political decision.

Gazprom never considered the overland route, as a direct route from Russia to Germany allows Moscow to more effectively manipulate the European energy market. A number of industry analysts have questioned the profitability and motives of Gazprom in this regard. Reports issued by Hermitage Capital Management, a Moscow-based equity fund, have noted that Gazprom does 'not seem to be receiving significant profit from its [purchases and joint ventures in Europe]'. Hermitage Director of Research Vadim Kleiner has explicitly questioned the role of these moves: 'Are there any economic returns from these investments for Gazprom, and if not, what is the business rationale for spending such money?' The answer that Kleiner left unsaid is this: Gazprom is operating by a different set of rules ([9]).

Many industry experts have expressed concern that corruption and inefficiency, coupled with Moscow's refusal to allow significant foreign investment into the energy sector, will soon lead the Russian oil and gas industry to 'burn out'. Instead of investing in its own energy infrastructure, Moscow has utilised windfall profits to pursue an aggressive policy of expansion and acquisition. Especially if world energy prices drop and Moscow's treasury runs thin, Russia may struggle to meet its commitments to Europe.

Thus, the EU's dependency on Russian oil and gas poses a challenge to two fundamental goals of the CFSP. First, the current and future unreliability of Russian supplies critically weakens the Union's security. At the same time, that dependence also undermines Europe's efforts to foster the ideals of good governance, market transparency and democracy—both in Russia and in Russia's neighbours. Although

[6] Bush, J., 'The Bigger Gazprom Grows, The Further Russia Backslides', *Business Week Online*, 20 December 2004, http://www.businessweek.com/magazine/content/04_51/b3913077_mz054.htm.

[7] Cornell, S., et al, The Wider Black Sea Region: An Emerging Hub in European Security (Uppsala, Sweden: Silk Road Studies Centre, 2006), p. 82

[8] Amsterdam, R., 'Taking a Stand', *The Petroleum Economist*, 1 February 2007, p. 23.

[9] Dempsey, J., 'Europe Worries Over Russian Gas Giant's Influence', *The New York Times*, 3 October 2004.

the establishment of these principles in energy suppliers is a worthy goal in its own right, doing so will also create a more stable environment for energy sector development, thereby improving European security. However, as long as the EU's energy supplies are dominated by a single source, Europe will continue to suffer from energy insecurity. If that single country is Russia, the EU will also be frustrated in its efforts to foster democracy abroad. A more equitable distribution of Europe's energy sources—specifically by turning to states in the Caspian Sea region and in North Africa—is the key to ensuring that these two goals are achieved.

1.3. Working with European Neighbours

The European Neighbourhood Policy (ENP) was created in 2005 as a means of enhancing prosperity, stability and security in states located on or near the EU's external borders. Through the ENP, neighbouring states negotiate 'action plans' by which they are to achieve political and economic reforms. Although this programme has admirable goals, the ENP has not yet been particularly successful in spurring meaningful change. The ENP has been rightly criticised for its failure to offer sufficient incentives for neighbouring states to undertake costly and painful reforms. Critics have also pointed out that the action plans are not adequately tailored to each individual state's unique situation.

In light of these criticisms, the European Commission—and the German Presidency—has committed itself to strengthening the ENP. In December 2006, the EC submitted a paper to the European Parliament calling for more robust engagement with ENP states ([10]). This is a laudable goal; however, since many European neighbours are oil and gas producer or transit countries, any effective political and economic engagement has to include energy as well. Energy is a particularly important dimension for countries that are pressured by Moscow *not* to improve their investment climate or undertake political reforms. Deterring reform is very much in Moscow's interest, as it prevents developing countries from drifting out of Russia's sphere of influence and into Europe's.

If the EU wishes to foster true reform within former Soviet states, it must offer them a non-Russian perspective. This can best be achieved through cooperation on joint energy projects. In the Caspian region, this strategy has been pursued with success by the United States. In the late 1990s, the United States pushed hard for the construction of several oil and gas pipelines that would carry Caspian energy westward without transiting Russia. It did so to break Russia's monopoly on the region's energy transportation system, thereby giving the Caspian countries greater economic and political independence from Moscow. Naturally, this prompted strong objections and high-pressure tactics by the Russian government. Determined support from the US and from NATO ally Turkey was eventually successful in countering this Russian pressure. Pipelines for both oil and natural gas were eventually completed from the Azerbaijani capital of Baku across Georgia to Turkey.

[10] Communication from the Commission to the Council and the Parliament, 'On strengthening the European Neighbourhood Policy', COM(2006)726 final.

Selected Gasfields and Pipelines Delivering Natural Gas to Europe

The US pushed hard to make these routes a reality, even though the oil and gas was destined for the EU. The time has now come for the EU to take the lead and bring neighbouring states closer to the West through a concerted engagement effort. Such an effort should involve a strengthened ENP: the so-called ‘ENP Plus’. However, since the key potential energy producers of Central Asia—such as Kazakhstan and Turkmenistan—are not in the ENP (and are unlikely to be added), alternative means will be needed to reach out to the region. Germany is taking advantage of the opportunity provided by the making use of its EU Presidency to lead the charge for greater engagement with Central Asia. The German Foreign Ministry, as well as the European Commission and the CFSP, are all currently drafting separate proposals for what would be the EU’s first Central Asian policy.

This new policy must strongly emphasise energy issues, as such a focus is long overdue. Although the EU appointed a Special Representative for Central Asia in 2005, the mandate did not include energy (however, is to be remedied in March 2007). It is simply not possible to promote EU policies in this landlocked region without first and foremost engaging Central Asian states on energy export infrastructure. Otherwise, Russia and China will continue to do so themselves—and will continue to promote policies that do not comply with the EU’s goals of ‘contributing to strengthening of democracy, rule of law, good governance and respect for human rights and fundamental freedoms’.

Two positive precedents are the BTC and SCP pipelines. First and foremost, the construction of these pipelines has substantially decreased Moscow’s leverage over both Azerbaijan and Georgia, allowing them to resist political and economic pressure from Russia. When Gazprom demanded a higher price for the gas it provided to Azerbaijan, Baku decided not to import any Russian gas. Later, when Transneft (Russia’s state-owned oil pipeline monopoly) refused to offer a market price for Azerbaijani oil, Baku decided not to export oil via Russian pipelines. These were choices that Azerbaijan did not have prior to the construction of the two East-West pipelines.

At the same time, thanks to this policy, substantial reforms have been achieved within both Azerbaijan and Georgia. The international consortium behind these pipelines refused to agree to the construction of either project until contracts were signed offering them the needed legal protection. Ongoing involvement with Western companies and gentle prodding from Western governments have prompted further political and market reform. The incoming flows of investment—together with the prospect of increased protection of their independence—gave Georgia and Azerbaijan the means to achieve those changes. These years of positive interaction with the West allowed Azerbaijan and Georgia to cement their orientation towards a future in European and Euro-Atlantic institutions

Azerbaijan’s most recent legislative elections, held on November 2005, reveal the positive impact of engagement. Although it is certainly true that this election was far from perfect, it was widely recognised as an improvement over previous years. Exit polls were conducted for the first time, public rallies were permitted, and foreign missions were allowed to observe the elections. Furthermore, following international criticism over fraudulent voting, the government annulled the results from ten districts and ordered new elections in those districts (held in May 2006). Several corrupt election officials involved in the fraud were fired and recounts were ordered. These changes are being spearheaded by President Aliyev, who is demonstrating a commitment to increasing his country's engagement with the West. He is taking many of these steps despite Russian suggestions that he too would be overthrown in a 'colour revolution' if he continues with such pro-Western changes. Moreover, as in many states on the cusp of reform, there are a number of hard-liners within the Azerbaijani government who are fiercely resisting change. Aliyev has taken steps to remove these hard-liners from power, but must proceed slowly lest he trigger a backlash from reactionary Azerbaijani forces.

Similarly, Kazakhstan, Azerbaijan's neighbour on the eastern shore of the Caspian, has shown progress thanks to engagement by the West. Kazakhstan held elections for its parliament in 2004 that were lauded as 'the most open and competitive poll in Kazakhstan's post-independence history'. However, Kazakhstan's election was also marred by irregularities and rightly decried as imperfect. Yet, its progress is undeniable. Earlier this year, Kazakhstan's Prime Minister Daniyal Akhmetov, who had been roundly criticised by both opposition groups and by President Nazarbayev for his poor record on economic reform and dealing with corruption, was replaced with Karim Masimov, a Western-educated lawyer, economist, and pro-Western reformer. Masimov's appointment is a clear signal that Nazarbayev is set to move forward with significant political and economic reforms in an attempt to secure the 2009 chairmanship of the OSCE. In December of 2006, the OSCE deferred Kazakhstan's bid to chair the group, citing the country's poor record on democracy. Masimov will be better-suited than Akhmetov—an 'old-guard technocrat'—to deal with a new, more open political environment ([11]). However, he cannot succeed in serious reforms unless the EU (together with the US) shows a united and firm commitment to ensuring that Kazakh oil and gas reach Western markets free from Russian pressure.

By tying energy issues more firmly to its policies in the region, the EU can also help energy producing states such as Azerbaijan and Kazakhstan responsibly manage their windfall profits. Far too many energy producers have fallen prey to the so-called 'resource curse'. There are signs that the energy-producing states of the Caspian region are taking the management of their resource wealth seriously. Both Azerbaijan and Kazakhstan have established State Oil Funds to responsibly allocate energy profits in the present and save them for the future. In November 2004, Azerbaijan became the first oil-producing state to publish a report in the context of the Extractive Industries Transparency Initiative (EITI). In June 2005, Kazakhstan hosted an international business conference specifically focused on formulating strategies for diverse and sustainable growth. However, for a developing state with tremendous resource wealth, there is always the danger of backsliding.

Indeed, the risk of such regression remains very high, as Russia and China are keen to increase their influence in the region. Neither Russia nor China will push for liberal, democratic reforms when negotiating deals with Caucasus and Central

[11] 'Kazakh president's close ally becomes new prime minister', *International Herald Tribune*, 10 January 2007.

Asian states—in fact, they are likely to oppose them. This works directly against the objectives of the CFSP and the energy security of the EU. The states of the Caucasus and Central Asia stand at a crossroads; the EU must increase its engagement with the region soon. Gas and oil contracts are typically long-term deals; thus, with one commercial victory, China and Russia will be able to effectively lock the states of the region into their respective orbits—leaving the EU with severely limited options with which to press for reform. Russia, in particular, does not see the development of the energy sector in the Caspian Sea region as a cooperative venture, but rather as a zero-sum game.

Gazprom's ability to continue supplying European markets depends completely on maintaining full control over the region's gas transportation. This is especially important in case of Turkmenistan, which has entered the post-Niyazov transition period. The window of opportunity to engage the new Turkmen leadership on long-term gas projects (and along with it, political and economic reforms) is rather limited.

Turkmen President Saparmurat Niyazov, who died on 21 December 2006, may have been many things, but he was not a Russian puppet. Niyazov wanted to move away from the grip of the Kremlin (and its foreign policy instrument Gazprom), but was unable to do so given the West's reluctance to work with him. In this respect, Niyazov resembled Belarusian president Alexander Lukashenka, commonly known in the West as 'Europe's last dictator'. He too is not a friend of Russia, but has moved closer to Moscow in the absence of any such possibilities with the West. It is an open secret that Moscow would love to see Lukashenka go, but will keep backing him so long as the West continues to oppose him. Lukashenka's reluctance to conclude gas deals with Russia, along with his calls for direct EU-Belarus cooperation on energy, has further heightened tensions with Moscow—as did Niyazov's own recalcitrance within the framework of Turkmen-Russian bilateral ties. Moscow wants to see a more malleable president of Turkmenistan, one who is willing to bow to its wishes—particularly on gas issues. Given that the next president will be relatively weak, Russian-Turkmen relations will depend on whether Niyazov's successor decides to rely on Russian backing to consolidate his position, or attempts instead to keep a healthy distance from Moscow. However, the latter option is only possible with the close support of the EU.

Current EU policies, including the ENP structure, simply lack the proper leverage to encourage Europe's energy producing neighbours to change. Often, the EU is interpreted as admonishing neighbour states, calling for too much political and social reform too fast—and with too little offered in return. Leaders in the Caucasus and Central Asia are more concerned with security and stability than with political openings. The threats of terrorism, extremism and drug trafficking loom large in the region. If political reform were undertaken too quickly—without the necessary improvements in economic, political and physical infrastructure—then governments would lose control of their states, and the dangers of the above threats would increase. Instead of lecturing leaders on reforms that they are not in a position to make, the EU should work together with its neighbours on stability and economic development, focusing on the energy and transportation sectors. This will bring greater engagement with the West and create the proper incentives by which to press for political reform. Properly executed, this engagement will create a mutual dependency that is vital to catalysing political and economic reform.

The Commission's efforts to strengthen the ENP are an excellent start to true engagement and to fostering reform. The revised ENP must include issues of energy security. The ENP action plans must also be more carefully tailored to each individual country. For example, Georgia is in a far better position to proceed with reform than Azerbaijan. Yet at the same time, Tbilisi has different expectations on what it can gain from the ENP than does Baku. There needs to be a deeper analysis of what combination of incentives and objectives will be effective for each state's action plan. However, even this 'ENP Plus' will not be sufficient. The five Central Asian states are not included in the ENP; any improvement to that programme will be of little benefit to Kazakhstan or Turkmenistan, two rising energy producers. An EU policy on Central Asia—as proposed by Germany—is also needed. Energy issues must feature strongly in this Central Asian policy, and the expanded ENP, in order for them to be successful. In any case, achieving reform in energy producing neighbours is also important from a security of supply perspective. As Moscow's recent shakedown of the Royal Dutch Shell in the Sakhalin II project made clear: when the rule of law is wanting, Western energy interests will not be safe.

1.4. Challenges in the Middle East, Opportunities in the Mediterranean

Russia is not unique in its use of energy supplies (or their interruption) as an instrument of foreign policy. However, there is a huge difference between dependence on Russia for gas and dependence on another country for oil. Gas is overwhelmingly transported via pipelines, whereas oil can be purchased in the spot market. Accordingly, this Study will devote less space to supplies from the Middle East, North Africa and Algeria, which comprise a much smaller fraction of its total consumption: The EU imports 19% of its oil from the Middle East and 12% from North Africa; it imports 10% of its gas from Algeria ([12]).

There are several factors of concern to the EU with regard to **Middle Eastern** sources of supply. First is the threat of terrorism, which calls into question the wisdom of continuing to rely on Middle Eastern oil. Many Islamist terror organisations—including al-Qaeda—have long understood the West's reliance on energy and actively call for terrorists to target the infrastructure that provides the West with its oil. They appear to be heeding this call. Terrorist sabotage of Iraqi pipelines continues to thwart American efforts to rebuild the beleaguered country's oil industry. In February 2006, al-Qaeda terrorists attempted to blow up the massive Saudi oil refinery at Abqaiq. While that attack failed miserably, there is no guarantee that subsequent efforts will be unsuccessful. After all, there are countless other targets far more vulnerable than Abqaiq, the world's largest oil processing facility. Saudi Arabia alone has hundreds of compressor stations, drill heads and storage facilities, along with thousands of kilometres of pipeline stretching across remote, isolated desert. While none of this infrastructure is as important as Abqaiq, it is all far easier to target. If Europe intends to import oil (and gas) from the Middle East, it must be prepared to accept this considerable risk.

[12] 'An External Policy to Serve Europe's Energy Interests', p. 6.

Second, in addition to the threats of terrorism and war, the Middle East's oil reserves are owned by opaque, state-run monopolies that have utilised energy embargoes for political purposes. In 1973, in response to the West's support of Israel during the October War, the oil-exporting nations of the Middle East declared a total embargo. Oil prices skyrocketed, almost quadrupling within six months. More recently, Iran has threatened to blockade the Strait of Hormuz (a vital energy chokepoint through which transits some 20 percent of the world's oil) if sanctions are levied in response to the country's controversial nuclear programme. Continued dependence on Iranian cooperation would seriously increase the EU's energy insecurity and leave it less able to implement the goals of the CFSP.

Even if Iran does not shut down the Strait of Hormuz, it represents at best an unreliable long-term gas supply alternative to Russia. For the foreseeable future, Iran will require its gas production for internal consumption and for re-injection into its oil fields (an integral part of the oil-extraction process). Therefore, it will be some time before Iran will have enough gas to export to Europe. Even when it does, it is not likely to become a consistent provider. Turkey's experience as a consumer of Iranian supplies is instructive: it has experienced regular supply interruptions, and it is not clear if these are due to Iranian domestic shortages or to efforts to put pressure on Ankara. Iran cut gas supply to Turkey in the end of 2006 thus making it more difficult for Turkey to give up part of its contracted Shah-Deniz gas to Georgia and Azerbaijan.

Moreover, when Iran does have the ability to export large volumes of gas, it is more likely to do so via LNG to China and India, neither of which are likely to place restrictions on imports due to Iran's support for terrorism or its deficiencies in the realms of human rights and democracy. Such calculations on the part of Iran and other hydrocarbon producers pose one of the most difficult challenges to the CFSP and to the EU's long-term energy security.

A third reason not to rely on Middle Eastern suppliers is the uncertainty caused by changing regional dynamics in and around Iraq—especially the increased Shia-Sunni confrontation. The future of Middle Eastern oil will depend on how the majority-Sunni countries—led by Saudi Arabia—respond to the emergence of Iran as the leader of an emerging Shia crescent. Saudi Arabia and other countries have a variety of means at their disposal. For example, Riyadh can decide to dramatically increase oil production, thus decreasing the price Iran receives for its exports—and undermining a regime that depends on oil revenues to control its huge and growing young population.

Clearly, despite widespread opposition to a military attack on Iran, a new CFSP that incorporates energy security also needs to factor this possibility into its strategic planning. Recent signals from the Bush administration indicate that the US is going to pursue a path of confrontation that may end in a strike. The full impact of the likely chaos in the region is impossible to estimate; yet, regardless of the form the eventual conflict takes, it should be clear that the Middle East is not a particularly promising source of oil and natural gas for Europe in the short to medium term. Of course, the EU should work towards finding solutions for the problems that continue to plague this critical region. However, this can be better accomplished if Europe is not beholden to Middle Eastern oil imports.

Instead, the EU should look closer to home. The states on the south side of the Mediterranean Sea have substantial oil and natural gas reserves. They also have well-established energy ties with the EU, having exported gas to Europe for several decades. The countries of Algeria, Libya and Egypt represent an excellent opportunity for the EU to achieve many objectives: to diversify supply sources, to increase flexibility in foreign policy and to meaningfully integrate energy partnerships into the ENP.

Algeria has been an important source of natural gas for Europe for many decades. It was the world's first producer of LNG, completing its Arzew export facility in 1964, and is still the world's second-largest exporter of the commodity. Algeria's first export pipeline to Europe was completed in 1983, connecting the North African country with Italy. An additional line to Spain was laid in 1996. Currently, Algeria supplies approximately 10% of the EU's gas consumption, and is the third largest source of imported gas after Russia and Norway. Its reliable track record, geographic proximity, and sizeable gas resources—with proven reserves of 4.5 trillion cubic metres—make Algeria an attractive supplier for EU gas imports. Indeed, there are two new pipeline projects underway aimed at bringing Algerian natural gas to Europe. Medgaz will connect Algeria with Spain and should be completed in 2008. Galsi will terminate in Italy and is scheduled for completion in 2011. The North African state is also planning a substantial upgrade and expansion of its four LNG liquefaction plants, as well as the construction of two new ones. These current and future projects will drastically increase Algeria's European export capacity. OME estimates that by 2010, it could provide 81 bcm per year to Europe (up from 53 bcm in 2004). By 2020, that figure could reach 110 bcm.

Libya also began its involvement in the natural gas industry at a relatively early date; in 1971, it became the world's 2nd producer of LNG (after Algeria). However, investment dried up following a raft of protectionist and anti-Western policies. Thanks to the newly Western-friendly stance of Libyan leader Muammar Qaddafi, this former pariah state has become an increasingly attractive potential source of oil and gas. It is estimated to contain over 1.5 trillion cubic metres in proven gas reserves, with the potential for significantly more to be discovered in this largely unexplored country. Libya currently exports a mere 2.1 bcm annually, the majority of which goes into Italy through the recently completed Greenstream pipeline. The rest of the country's exports come from its LNG plant at Mersa el Brega, operational since 1971. With adequate investment, Libyan natural gas production and exportation can significantly increase. Greenstream has a capacity of 8 bcm and the LNG plant is scheduled to be upgraded to a 4 bcm annual capacity. By 2010, Libya could be exporting 12 bcm of gas to Europe. If additional expansions are made or new pipelines built, this number could double by 2020.

Of the three states considered here, **Egypt** has made the least progress in developing its natural gas export sector. Although it produced 32 bcm in 2004, nearly all of this was consumed domestically. Natural gas exports totalled only 1.1 bcm in 2004. However, given its strong industrial base and relatively favourable investment climate, Egypt is expected to expand its natural gas industry dramatically over the next decade. In fact, two large liquefaction plans are currently under construction, with the bulk of planned exports already reserved by Spanish, French, British, and Italian gas companies. By 2010, these plants could be exporting 23 bcm to European markets, a figure that could rise to 28 bcm by 2020.

However, just as in the Caspian region, the EU must move quickly to ensure that these valuable energy producers—and key European neighbours—are not drawn into the Russian sphere of influence. Moscow has been actively courting its Soviet-era clients in North Africa ever since the Ukraine gas crisis publicly raised doubts about Russia's reliability. In March 2006, Moscow agreed to write off $4.74 billion of Algeria's Soviet-era debt. Then, in August, Russia and Algeria signed an MoU on energy cooperation. Just last month, the two countries agreed to deepen further their cooperation on exploration and transportation in the energy sector, prompting many observers to speculate on the eventual creation of a gas cartel similar to OPEC. Moscow has made similar overtures to Libya and Egypt, signing an agreement in December 2006 on cooperation in exploration and production of oil and gas in Egypt. Without a similar effort by the EU, the energy producing states of North Africa will drift under the influence of Russia and its policies, which are often in conflict with those of the EU.

2. EVALUATION OF 'AN EXTERNAL POLICY TO SERVE EUROPE'S ENERGY INTERESTS'

In this section, the Study outlines the paper's 10 guiding principles and points mentioned in the section entitled 'Getting Results', and assesses how this approach could be concretely integrated into the CFSP at the bilateral, regional and multilateral level.

In order to enhance the external security of energy supplies of the EU, this paper recommends that a coherent approach be adopted that pursues the following objectives:

1. Promoting transparency and improved governance in the energy sector through energy partnerships with third countries, the objective being to create mutually beneficial, open, transparent, non discriminatory and stable legal conditions for energy investment and trade.
2. Improving production and export capacities in producer countries and developing and upgrading energy transportation infrastructure in producer and transit countries.
3. Improving the climate for European companies' investments in third countries and opening up the production and export of energy resources to EU industry.
4. Improving conditions for trade in energy through non-discriminatory transit and third party access to export pipeline infrastructure.
5. Enhancing physical and environmental security as well as the energy infrastructure safety.
6. Encouraging energy efficiency, use of renewable energies including bio fuels, low emission technology and rational use of energy worldwide.
7. Implementing the relevant Kyoto Protocol mechanisms.
8. Diversifying energy imports by product and country.
9. Creating an international regime for the supply of enriched uranium to countries that have chosen the nuclear option, in line with non-proliferation commitments and taking into account the EURATOM treaty provisions.
10. Promoting strategic reserve stocks and encouraging joint stock holding with partner countries.

These objectives correspond neatly with how this Study has framed the issues. Several of these points are directly relevant to Russia, which should no longer be treated as a special country but held to the same standards as, for example, Kazakhstan. This is especially true with regard to the **first** objective: transparency and governance in the energy sector. It is simply hypocritical of CFSP not to demand more transparency of companies like Gazprom and its subsidiary RosUkrEnergo (RUE). Since 2004, RUE has acted as an intermediary for the sale of natural gas between Gazprom and Ukraine. It currently is the sole importer for natural gas into Ukraine and is involved in a joint venture with Naftohaz, Ukraine's domestic gas utility. However, RUE's corporate structure and the circumstances surrounding its formation are astonishingly complex and opaque—as are its business practices today. Details have slowly emerged that RUE is the virtual reincarnation of another gas intermediary, known as Eural Trans Gas (ETG). The ownership of both companies is obscured by a shadowy network of unnamed international investors, holding companies and subsidiaries. Before her government was dismissed in September 2005, Ukrainian Prime Minister Yulia Tymoshenko called the RUE scheme a 'criminal enterprise' ([13]).

Since its formation, RUE has been the subject of a great deal of scrutiny from both Ukrainian and American criminal investigators. A number of allegations were raised over corruption and criminal links,

[13] 'It's a gas: Funny business in the Turkmen-Ukraine gas trade', A report by Global Witness, April 2006, http://www.globalwitness.org/media_library_get.php/296/its_a_gas_april_2006_lowres.pdf.

both resulting in huge financial losses for Ukraine. The Ukrainian investigation was halted shortly after the fall of the Tymoshenko government, but RUE is still a subject of interest for the US Justice Department's organised crime unit. Specifically, investigators are attempting to ascertain the involvement of Semyon Mogilevich—a sophisticated money-launderer and one of the FBI's most wanted individuals—in the energy intermediary ([14]). Given that 80 percent of Europe's natural gas supply from Russia flows through Ukraine (and RUE), billions of dollars are potentially being mismanaged or laundered. Furthermore, by receiving gas supplies from RUE, the EU is effectively a participant in a multi-billion-dollar money-laundering scheme.

Similarly, the recent IPO of Rosneft on the London stock exchange has revealed an astonishing lack of legitimacy; if the energy company were British, it would be in breach of UK trading rules. The London stock exchange requires that at least 25 percent of a company's shares be held by non-investors and non-insiders. However, less than 1 percent of Rosneft's shares meet this description. The Russian energy giant flouted these regulations by exploiting a loophole reserved for foreign companies trading in London. Thus, while technically legal, Rosneft's float did nothing to increase the company's accountability; it still answers only to the Kremlin ([15]).

Leniency on issues of transparency and legitimacy regarding Russian companies demonstrates the limitations of the CFSP, which not only emboldens the Kremlin in its use of energy as a political weapon, but also gives the wrong signal to other third party producer countries.

It is critically important for third parties like Russia to have stable legal conditions for energy investment and trade. The treatment of Shell in the Sakhalin II dispute should make this concern clear: the loud protests from Moscow over Shell's environmental violations were immediately dropped after Shell (and its Japanese partners in the consortium) agreed to give a controlling share of the project to Gazprom. Western companies are bringing capital and technology, and yet they are not permitted to hold majority shares in any ventures. Not only does this prohibition not help to improve transparency, but it also encourages Russia to obtain the necessary technology from Western sources without making any corresponding concessions.

The **second and third** objectives directly relate to several of the issues discussed so far in this Study, and again relate to how the CFSP should deal with Russia. On 'improving export capacities in producer countries', the construction of non-Russian east to west pipelines is necessary—and has worked when strong political will was present, as the BTC and the SCP pipelines demonstrate. On oil, though Kazakhstan is expected to be the biggest new non-OPEC supplier of oil to the West, so far Russia has hampered it from achieving its full production and export capacity. The rich Tengiz field has not produced 20 million tonnes or more as expected from 2004 to 2006, but only 13 million tonnes per year. This shortfall has been due to Moscow's blocking of the Caspian Pipeline Consortium (CPC) line—the only pipeline to transport Kazakh oil to the Russian Black Sea port of Novorossiysk. The Russian government has been delaying the second

[14] Simpson, G.R., 'U.S. Probes Possible Crime Links to Russian Natural-Gas Deals', *The Wall Street Journal,* 22 December 2006.
[15] Temerko, A., 'Russia buyers beware', *Wall Street Journal*, 1 February 2007, p. 14.

phase expansion of CPC's capacity to 65 million tonnes from the existing annual level of 27 to 31 million tonnes ([16]).

Through the control of the export terminal, Moscow has not only affected the production schedule, but has also pressured American companies ChevronTexaco and ExxonMobil, the main shareholders at Tengiz, by tying the CPC expansion to their throughput commitment to a Russian-backed oil pipeline that will be constructed from Bulgaria to Greece. While the American companies may prefer a non-Russian controlled oil pipeline in the Black Sea, they may have no choice but to comply with Moscow's 'soft' blackmail.

The experience with Tengiz and CPC should be a wake-up call for the EU on the future production and export possibilities of the even bigger Kashagan offshore field. So far, the consortium developing the field has not decided which way to send the oil when it starts production in 2009. Russia wants to get as much of it committed to its pipeline networks, and unless the EU (together with the US) acts now, it may succeed. The Aktau-BTC line needs to become a priority for the CFSP, so that oil can be exported via the non-Russian-controlled trans-Caspian route. It is urgent that EU leaders recognise that lack of swift action now will leave them without any non-Russian-controlled option in the future.

The EU must also work to create export routes for gas from the Eastern Caspian states (Kazakhstan, Turkmenistan and Uzbekistan). So far the US has been a leader in Caspian gas pipeline transport developments, even though the consumers and markets of that gas are in Europe. The gas from the Caspian needs to be 'pulled' by European markets. Without this political commitment, investors will not pour billions of dollars into the construction of a trans-Caspian gas pipeline. The relevant companies, which are primarily European—BP, Statoil, Shell and ENI—are all waiting to see whether the EU will meaningfully engage with the three Central Asian countries or continue to pay lip service. Central Asian decision-makers are also waiting anxiously—after all, if the EU will not confront Russia over access to Central Asian gas, why should they go out on a limb? If, during its EU and G8 presidencies, Germany does not take a lead on this issue, how can countries that are so politically and economically vulnerable to Russian pressure be expected to commit their oil and gas to east-west pipelines? New EU documents rightly stress the importance of receiving Central Asian gas, and the MoU reached with Kazakhstan on establishing a framework for energy relations in December 2006 is an excellent start. Yet, it will not mean anything unless energy supply security is included in the CFSP—and unless the EU is willing to compete with Russia in the region. Time is a very important factor here: more delay will only give Gazprom the opportunity to pre-empt the EU's Trans-Caspian pipeline plans.

An Energy Policy for Europe's Priority Interconnection Plan includes the need to appoint 'four European coordinators to pursue the four most problematic priority projects: the Power-Link between Germany, Poland and Lithuania; connections to off-shore wind power in Northern Europe; electricity interconnections between France and Spain; and the Nabucco pipeline bringing gas from the Caspian to central Europe'. Trans-Caspian transport of Central Asian gas must become a fifth priority. Indeed, as the West is likely to fail in

[16] Socor, V., 'Kazakhstan oil output and export data demonstrate urgency of trans-Caspian outlets', *Eurasia Daily Monitor*, 19 January 2007.

persuading Russia to ratify the Energy Charter Treaty and join the Transit Protocol to open up its pipelines for third party access (see below), it is obvious that efforts should now focus on establishing direct, diversified transport routes to access Caspian gas.

Furthermore, competition with Russia cannot be limited to Central Asia; access to Azerbaijani gas supplies is particularly important: if the upstream investment in the Shah Deniz field can be accelerated, significant quantities of gas could flow from Azerbaijan to Europe in a very short time. In 2007, it will begin sending small volumes of gas to Greece; in nine years, Azerbaijan could export one-third of what Russia currently sends to Europe. By 2020, Azerbaijan could produce from 30 bcm to 70 bcm of natural gas, of which up to 50 bcm could be supplied to European markets. Undoubtedly this will require significant lowering of market access risks for investors. One way of achieving this is further diversification of export possibilities to the European markets, such as through Nabucco

If the EU is indeed serious about Nabucco, then attention needs to be paid to many of the countries along the route of this critically important pipeline. Given the methods Gazprom uses in these countries—corruption, intimidation, unfair competition—it is only logical that energy developments in these countries be an integral part of the CFSP. Otherwise, it is possible that a number of countries—including NATO allies Turkey, Greece, Bulgaria and Hungary—will be sucked into a new Russian orbit. This would have overwhelmingly negative consequences for other EU foreign and security policies. If allowed to succeed, Gazprom will have control over the Nabucco route, and the whole concept of the project—to increase EU gas supply diversification—will be lost. Nabucco will then only serve to strengthen Russia's leverage on Ukraine, Nabucco countries and the EU.

An effective instrument to counter Gazprom's plans to proceed with Blue Stream II and mitigate its other instruments of controlling Nabucco is the implementation of a parallel transportation route—the GUEU gas link. GUEU could open an additional supply gate for the EU, bringing gas from Azerbaijan across Georgia, the Black Sea and Ukraine to Slovakia and Poland. When implemented in parallel with Nabucco, such a supplemental route, even if operating with a limited capacity, will negate the efforts of Gazprom in Nabucco countries while also helping Ukraine to preserve its gas transportation system. The EU is now paying more attention to this project, but has not yet awarded GUEU the status of a European Interest project. Parallel development of two synergy projects (Nabucco and GUEU) will create a multiplier effect and greatly reduce the risks of investments in the Caspian. While this would be a challenging undertaking, these projects have the potential to become the only links totally beyond Gazprom control. With proper support, especially under the CFSP, they can become a competitive business venture supplying gas to the EU.

The more advanced Turkey-Greece-Italy (TGI) gas pipeline, which is already a European Interest project, could also provide European markets with valuable non-Russian-controlled Caspian gas after its construction—but only if Gazprom does not take total control of the pipeline.

Another objective highlights the need to improve energy transportation infrastructure in producing and transit countries. Indeed, there are several examples demonstrating how this would be important to the CFSP. If Lithuania had not constructed the Butinge terminal, it would not have survived the recent oil cutoff. (At the least, it would have had to sell its refinery to a Russian company rather than the Polish firm PKN Orlen.) Additionally, if Azerbaijan and Georgia had not completed the gas pipeline connection refurbishment by the time of the Gazprom price increase at the end of 2006, Georgia may have been forced to sell its pipeline networks to Moscow—since the South Caucasus state would have been at the mercy of Gazprom. The Russian monopoly's previous attempt to take over the Georgian network was stopped when the US Millennium Challenge Account (MCA) provided Tbilisi with funds to rehabilitate the line. For its own supply security, the EU should provide assistance to energy transportation infrastructure in similar cases; this can best be achieved if energy security is included in the CFSP framework.

The **fourth** objective, 'non-discriminatory transit and third party access to export pipeline infrastructure', is one that the EU has so far failed to promote successfully. The most important example is Russia's refusal to ratify the Energy Charter Treaty and the attached Transit Protocol, the latter of which would compel Russia to allow non-discriminatory access to its pipeline system. Thus far, Russia has suffered no consequences in its relations with the EU as a result of its obstinacy. In fact, Russian officials have been boldly claiming that Russia does not need to ratify the Charter, since it is already a 'reliable energy supplier to Europe'. The efforts to convince Russia to open its pipelines for third-parties will be more successful when Trans-Caspian oil and gas transportation projects such as Nabucco have been completed—or have been firmly committed to. Robbed of its monopoly control over Caspian exports, Russia will be forced to reconsider its policies.

The **fifth** objective is '[e]nhancing physical and environmental security as well as the energy infrastructure safety'. This is an area in which the European Security and Defence Policy (ESDP) may be instrumental, but new thinking is needed. Awareness of the serious domestic terrorist threat inside Europe is finally growing—especially after the July 2005 terrorist attacks in London by British-born Muslims—but serious planning is needed to address further possible attacks in Europe, including those on energy infrastructure.

In order to keep Europe secure, cooperation with third parties is needed, especially with regard to transnational threats such as terrorism and organised crime, regional conflicts and failed states. Under the 2003 'Berlin plus agreement' the EU is allowed to use NATO structures, mechanisms and assets to carry out military operations if NATO declines to act. Yet, the American position is clear that there should be no duplication of efforts between ESDP and NATO—beyond the EU's borders, NATO is already providing critical infrastructure protection and training for third-country nationals under the Partnership for Peace (PfP) or other specific pipeline security programmes. Indeed, ESDP does not need to duplicate these.

For energy supply security to be properly incorporated into the CFSP and ESDP, the case of Turkey has to be seriously discussed. Turkey is the emerging oil and gas distribution hub for Europe, but the EU is unable to deepen cooperation with this country due to the sensitivities of ongoing EU accession negotiations. As only full members of the EU have decision-making power within ESDP, Turkey is not interested in sending its troops into harm's way without a role in the decision marking. The unresolved Cyprus issue (involving a country that is a member of the EU but not of NATO) further complicates Turkey's relations with ESDP. Moreover, prior to the 2003 war in Iraq, many EU countries balked when Turkey asked for protection under the aegis of NATO's Article V. There would be even less willingness by ESDP to offer meaningful assistance in the event of another Iranian campaign of aggression towards Azerbaijani offshore oil production fields in the Caspian Sea. These are all areas where energy security is directly tied to the CFSP, but have been neglected so far.

Physical and environmental security would be further enhanced from the construction of pipeline routes that bypass the dangerously narrow Turkish Straits. Over three million barrels of oil per day travel through this waterway, which is less than a kilometre wide at its narrowest point. Tankers transiting the Turkish Straits pass through Istanbul, home to more than 10 million. Severe weather, terrorist attacks or simple human error could completely close down this oil chokepoint—with severe consequences for Europe's energy supply. Reducing tanker traffic through the Turkish Straits is yet another advantage of pipeline routes such as BTC (which terminates on the Turkish Mediterranean coast); other bypass pipelines need to be constructed to allow for increased oil imports from the Caspian, while reducing the vulnerability of Europe's oil transportation infrastructure.

The **eighth** objective, 'diversifying energy imports by product and country', is directly relevant to a project like Nord Stream. In Germany, Nord Stream is seen as a way to increase energy security, since it is an additional route for importing natural gas. However, since the supply source is the same, Nord Stream does not represent true diversification. In fact, Nord Stream will actually increase overall European dependency on Russian gas supplies while heightening tensions within the EU. Thus, Nord Stream is not merely a commercial project; instead, it is an endeavour fraught with tremendous geopolitical implications—and consequences. Now there are overtures to build branches of Nord Stream to supply the Baltic states and Poland, but the real diversification option for these countries is to obtain gas from Norway, the Caspian region and LNG.

The **tenth** objective suggests 'promoting strategic reserve stocks and encouraging joint stock holding with partner countries'. Indeed, there is need to increase both oil and gas storage across Europe. The International Energy Agency (IEA) can be most helpful. Even those EU countries that are not members due to their lack of membership in the OECD should still work with the IEA on storage issues—just as Poland did. In line with IEA regulations, countries should aim to have storage space for three months' consumption. While that would require a significant financial commitment, it would represent a crucial and essential guarantor of energy security. Similar gas storage capacities are needed in the transit countries of Georgia, Turkey and Ukraine. The CFSP and other instruments can be used for this purpose.

As the Commission/SG/HR paper correctly states, an effective EU external relations policy on energy must be:

> coherent (backed up by all Union policies, the Member States and industry), strategic (fully recognising the geo-political dimensions of energy-related security issues) and focused (geared towards initiatives where Union-level action can have a clear impact in furthering its

> interests). It must also be consistent with the EU's broader foreign policy objectives such as conflict prevention and resolution, non-proliferation and promoting human rights.

The initiatives the paper suggests are at the bilateral, regional and multilateral level. At the bilateral level, the 'interdependence' of the EU and Russia is cited; however, true interdependence requires mutual concessions from both parties. The EU must take advantage of its position as the leading consumer of Russian hydrocarbons. Any 'post PCA contractual framework' agreement that does not include Russian ratification of the Energy Charter's Transit Protocol will be irrelevant.

Another bilateral-level recommendation includes strategic energy partnerships with Algeria and Norway; both would be welcome. Algeria's significant potential has been mentioned in Section 1.4. Meanwhile, Norway is currently supplying 13% of the EU's gas and 16% of its oil; its gas supply is expected to increase by 50% in the next 5 to 6 years. In fact, by 2015-2017, NATO ally Norway will be as big a gas supplier to the EU as is Russia; to some countries, it will even be a bigger supplier than Russia.

A third recommendation is for the EU to 'help Turkey to make full use of its potential to become a major energy transit hub and in particular promote its rapid integration into the Energy Community Treaty', which, as mentioned above, will not work as long as Turkey's EU accession talks are in jeopardy. Ankara will be reluctant to commit to any more EU rules and regulations unless a more meaningful response from the EU is forthcoming.

The suggestion to 'implement the EU-Ukraine MoU on energy cooperation, the inclusion of a comprehensive energy chapter in the future bilateral agreement and envisage Ukraine's integration into the Energy Community Treaty' is also not going to be effective unless the EU pushes for more transparency in the energy sector. The prospect of becoming a link for the Caspian gas supply route to the EU—thus creating conditions for its own supply diversification—could be a powerful incentive to encourage the Ukrainian government to push for greater transparency. This move will also ensure that the Ukrainian pipeline system is not ceded to Gazprom. Ukraine will not and cannot become a more reliable transit country, and a more attractive investment destination, as long as organised criminal networks continue to dominate the energy sector. There is a clear role for the CFSP in helping Ukraine to fight these criminal networks. (In fact, the EU can have much better results in promoting reform in Belarus if it engaged Minsk on a mutually beneficial energy partnership)

The suggestion to 'place particular emphasis on the implementation of the energy-related provisions of the ENP Action Plans' is fairly general (as the provisions themselves are fairly general) but would potentially be extremely effective if the issues are framed as described earlier (see Section 1.3).

Another recommendation to 'develop bilateral energy cooperation with important producer and transit partners in North and continental Africa, the Caucasus, the Caspian Basin and Central Asia, the Middle East and the Gulf, as well as Latin America' is also appropriate in the context of the CFSP as explained above. It is important that the EU formulate a set of policies for the Black Sea region as well. Thus far, European interaction with this vital energy transit route has been undertaken through relationships with individual Black Sea states. This is noteworthy in light of the fact that the EU has developed regional policies for its relations with all other neighbouring regions. Thanks to EU expansion, three Black Sea countries—Greece, Bulgaria and Romania—are now Member States. Turkey is on accession path and Ukraine is part of the ENP. These new and potential EU members should push for the development of a formal policy for the Black Sea region—one that emphasises the critical role the region plays in Europe's energy security. The recently negotiated Baku initiative, which includes the Black Sea, Caspian Sea and Central Asian states, is a good start, but more is needed. The EU must launch an initiative similar to the Northern Dimension that specifically focuses on policy in the Black Sea region. At the same time, it must involve itself with existing regional organisations such as the Black Sea Forum or the Black Sea Economic Cooperation. Current European Council President Angela Merkel has specifically expressed her desire to develop a foreign policy set for the Black Sea region; now the EU must turn word into deed.

The last suggestion at the bilateral level also needs to be supported: 'enhance bilateral dialogue and cooperation with key consumer countries, particularly the US (where a more political dialogue on energy is needed) as well as Japan, China and India in a bid to seek a common approach to global energy issues. The objective would be to improve the transparency and operation of world energy markets and to develop sustainable energy resources and energy efficiency'.

At the regional level, there are two main suggestions. First is to 'extend the EU's internal market, through expansion of the Energy Community Treaty to include relevant EEA and ENP countries' and second to 'develop regulatory convergence through the ENP in order to improve the investment climate and provide a level playing field in terms of market opening, fair competition, and environmental protection and safety'. As this Study states above, these are all important suggestions—and should not remain just words on paper, but instead be backed at the highest political levels.

There are five suggestions at the multilateral level. The first one is to 'integrate the EU's energy objectives fully into its multilateral trade policy and pursue these through the WTO, as appropriate'. While the WTO can indeed play a relevant role in urging Russia to play by the rules of the market, previous experience (notably within the OSCE) shows that Russia may try to change the rules of the organisation once it is a member. The EU should 'conclude the negotiations of the Energy Charter Transit Protocol and secure [Russia's] ratification of the Energy Charter Treaty' *before* Russia joins the WTO, as the second suggestion states.

Other suggestions are even more non-controversial, and clearly merit support. These are: '1) Encourage Member States which are members of the G8 and the Commission to use this forum to promote the EU's energy interests, including in the G8+5 format which brings together key producers and consumers; 2) Consider how to strengthen cooperation with the International Energy Agency and extend its membership; and 3) Promote an international agreement on energy efficiency, boost development of renewable energies and deployment of energy efficient technologies'.

3. RENEWABLE ENERGY PARTNERSHIPS

In addition to diversifying the countries from which—and routes by which—it obtains energy supplies, the EU must also work towards diversifying the sources of its energy supplies. Today, oil and natural gas represent almost three-fourths of the EU's total energy consumption ([17]). Both of these hydrocarbons are increasingly obtained from foreign sources. Currently, 57% of the EU's natural gas consumption and 82% of its oil come from imports; by 2030, the EC projects that these figures will rise to 84 and 93 percent respectively. What is even more troubling is the fact that the bulk of these imports will come from Russia and a handful of other states. This paper has already detailed the security risks that come with relying too strongly on a single supplier. Yet Europe's high dependency on oil and natural gas has another disadvantage that is quite distinct from political vulnerability—and one that is potentially more dangerous. Specifically, transforming hydrocarbons into usable energy releases large amounts of carbon dioxide and other greenhouse gases. Such emissions are the primary causes of global warming. If current trends continue, EU emissions are set to increase by approximately 5% by 2030 ([18]). Thus, intensifying the role of renewable, lower-emission energy sources has two benefits: it decreases Europe's vulnerability to foreign energy suppliers, and it helps to prevent the very serious problem of global warming.

Europe has long been a leader in utilising renewable energy sources. For example, the Nordic countries are among the world's leaders in hydroelectric and wind generated power. However, as a whole, the EU remains heavily committed to coal, oil, and natural gas. As such, the Commission's *An Energy Policy for Europe* focuses heavily on increasing sustainable energy use within the Union, setting a target of an overall energy mix that is 20 percent sourced by renewables by 2020. This paper presents a number of carefully considered internal policies for achieving the EU's admittedly ambitious goals ([19]).

The role to be played by non-EU members in promoting sustainable energy receives far less attention in the Commission's paper. However, the involvement of the rest of the world is vital—global warming is, after all, a *global* problem. In particular, Europe must engage America on the issue of alternative energy. In addition to being the world's largest consumer of energy, the United States is also the biggest polluter, releasing more greenhouse gas emissions per capita than any other state. It continues to be the Bush Administration's policy to focus on technological innovation rather than on carbon taxes and emissions trading—much to the frustration of the EU. Regardless of one's stance on the value of international climate accords, there is still much to be gained by cooperation in the realm of research and development. The EU should pursue an EU-US Partnership on Alternative Energy.

The biofuel industry is particularly important to combating climate change, since oil's primary use is conversion into gasoline. Decreasing the demand for gasoline would drastically reduce Europe's oil consumption—more than 80 percent of

[17] 'Country Analysis Brief: The European Union', US Energy Information Administration, http://www.eia.doe.gov/emeu/cabs/European_Union/Energy.html.
[18] 'An Energy Policy for Europe'.
[19] Ibid.

which comes from foreign sources. In the United States, research and development on this crucial technology has intensified greatly. The US is by far the world's largest consumer of gasoline, and is beginning to recognise the detrimental effects of this consumption—not only to its own security, but also to the global environment. In fact, during his State of the Union address on January 23, President Bush called for the US to decrease its gasoline consumption 20 percent by the 2017. This is to be accomplished through a mixture of improving fuel efficiency and drastically increasing use of alternative fuels such as ethanol. This is a perfect opportunity for the United States and Europe to expand their cooperation, as will be elaborated in Section 3.1.

This Alternative Energy partnership should be undertaken in concert with an expansion of the ongoing EU-China Partnership on climate change. China's booming economy requires energy. Overwhelmingly, its energy demand is sated by oil and (especially) coal. Two-thirds of China's energy consumption comes from coal; it has the world's 3rd largest reserves of this fuel and is the world's largest coal consumer. As such, China has been working on cleaning up this notoriously dirty industry, pursuing 'clean coal' techniques such as coal bed methane production, as well as coal liquefaction and gasification. To these ends, the EU and China can greatly assist one another. The EU has already invested heavily in R&D for clean coal technology. The EU should endeavour to cooperate with China within the framework of its pre-existing EU-China Partnership. In this realm, the United States can also be a valuable partner; it holds, by a great margin, the world's largest reserves of coal.

3.1. A new Trans-Atlantic Cooperation?

EU-US cooperation on energy security and diversification may finally be possible in light of changes on both sides of the Atlantic. The US has historically framed energy as a national security issue and was reluctant to include climate change. For example, President Bush's 2006 State of the Union address warned that the US was 'addicted' to oil and, for national security reasons, needed to end this addiction. The EU, on the other hand, has traditionally approached energy from a climate change perspective and has been reluctant to discuss foreign and security policy implications. The European Commission's energy Green Paper of 2000 was wholly devoted to an energy policy that combats global warming. In a welcoming development, both sides are beginning to adopt some of the other's thinking.

In America, both the Administration and Congress appear ready to tackle the issue of climate change. President Bush's 2007 State of the Union address criticised America's reliance on oil—just as in 2006—but also highlighted the environmental risks of that hydrocarbon addiction. At the same time, the Democrat-led US Congress has decided to make climate change a focus of the upcoming session. Newly-elected House Speaker Nancy Pelosi, an outspoken environmentalist, intends to create a select committee on energy independence and climate change.

For its part, the EU has also shifted position, expressing greater concern over reliance on a handful of sources for its energy supplies. Both the March 2006 Green Paper and the January 2007 energy strategy (released during the Russia-Belarus oil cutoff) noted the importance of diversifying energy routes and suppliers. Movement has been slow on both sides of the Atlantic, however.

The EU and the US share the same basic goal—reducing use of fossil fuels—but have framed the threat posed by over-reliance on hydrocarbons in two different ways. However, the national security aspect and the climate change aspect of dependence are closely intertwined. As global warming leads to increasingly severe weather, resource-driven conflict will be exacerbated and economies will be disrupted. This is already occurring in many developing parts of the world; a large contributor to the horrific violence in Darfur is a shift in rainfall patterns that has put nomadic herders in competition with settled pastoralists. The refugee flow from this conflict has disrupted many of Sudan's neighbours—upsetting an already delicate ethnic balance. For those that think such disorder and instability will be limited to the developing world, one need only look to New Orleans in the US to be reminded that high purchasing power parity does not bring immunity from the security risks of climate change. Almost overnight, following Hurricane Katrina, a large city in the world's richest nation was thrown into chaos and lawlessness. Clearly, the threats posed by climate change and national security are not mutually exclusive.

Establishing a dialogue between the EU and the US will help both sides understand the risks of dependence. More importantly, it will help them avoid those risks by working towards increased efficiency and alternative energy technologies. A few years ago, when the US decided to opt out of the Kyoto Protocol, the initiative between the EU and US on developing renewable energy sources was seriously weakened. Today, both actors should rekindle this cooperation and work to eliminate environmental problems, provided that they couch this issue in their foreign and security policy agenda.

Unique alliances can be formed by security conscious Americans and environmentally conscious Europeans, with the result being new technologies to replace oil and gas usage in the medium to long term. For example, in America, a leading spokesman of plug-in hybrid cars is James Woolsey, who is not an environmental activist but a hawkish former director of the CIA.

New technologies that can reduce the West's dependence on unsustainable energy resources are being developed; the EU should actively encourage these advances. Quite simply, many of today's most promising alternative energy sources are not competitive with well-established fuels such as coal, oil and gas. Thanks to scientific research, that gap has closed in recent years. The EU should, together with the US, increase funding for research and development. This should include the initiation of projects undertaken jointly by the EU and the US.

Large-scale methods of producing cleaner energy—such as solar, nuclear and wind plants—require much greater amounts of start-up financial investment compared to oil- and gas-fired plants. Once built, the operating costs of oil and gas plants outpace those of many alternative energy plants. However, this still means that the market will favour traditional means of generating energy. The EU and the US should subsidise the utilisation of cleaner energy sources. This can include government grants and interest free loans to companies that would construct alternative energy projects or tax benefits for individuals and businesses that make use of alternative energy. Eventually, a 'critical mass' will be achieved and these methods will no longer be needed.

4. CONCLUSIONS AND RECOMMENDATIONS

The time has come for the establishment of a European-level external energy strategy that is incorporated into the CFSP. Every Member State pursuing its own energy policy only decreases the overall security of the Union, limits the EU's foreign policy options, and in the end damages its own energy security. The EU's primary oil and gas provider—Russia—has deliberately taken advantage of this lack of cohesion to gain favourable energy deals and heighten European dependence on Russian supplies.

What should be the priorities of the EU's external energy strategy? What policies should it follow? While specific supplier choices can be made at the Member State level, these decisions must complement the broader strategy goals set by the European Union. This Study has already reviewed suggestions from the most recent EU papers and commented on those recommendations. In addition to those and by way of concluding, the Study offers five broad strategies:

4.1. Shift Reliance Away from Russian and Middle Eastern Supplies

These two regions contain the bulk of the world's energy resources, including those which are exported to the EU. Russia and the Middle East together supply 46% of the EU's oil, and Russia alone provides 24% of its natural gas (the Middle East is currently not a major factor in Europe's gas supplies). Thus, given the primacy of oil and natural gas in the European economy, it is not possible (or even necessary) to completely exclude Russian and Middle Eastern supplies. In order to reduce the detrimental effects of its current dependence, the EU needs only to reduce its reliance on those suppliers. In this context, the EU needs to ensure that the bulk of Caspian gas reaches its markets not through Russia, but through alternative corridors such as Turkey and the Black Sea.

As discussed earlier in great detail, the EU must use the guiding principles of the CFSP to change existing dynamics. There are many legal ways in which this can be done—such as anti-monopoly statues and the Energy Charter and its Transit Protocol. These can be implemented if the political will exists among Member States.

Ultimately, the issue relies upon political decisions taken in EU capitals. Moscow can only extract favourable conditions when it deals with Member States bilaterally and when it plays them against each other.

4.2. Increase Focus on Caspian and Mediterranean Sources

The Caspian Sea region is soon going to be producing large volumes of oil and gas; the EU needs to move now to secure the timely production and reliable and environmentally sustainable transport of these resources to its markets. Support for Nabucco, TGI and GUEU would significantly accelerate Western investments in the Caspian region, thus attracting the bulk of the gas reserves to European markets. The European market is strong enough to attract Central Asian gas and to prevent the gradual reorientation of the region to the east if sufficient transportation infrastructure is developed. Given the eagerness of the region's key oil and gas producing countries in deeper engagement with the West and EU institutions, there is a unique opportunity not only to diversify European external supply sources, but also to do so in a way that will further the goals and principles of the CFSP.

The EU's Mediterranean neighbours Algeria, Egypt and Libya will also provide additional and new sources of energy supply. These states are relatively stable and reliable producers. The EU can best further CFSP goals with these countries through energy partnerships, especially since they too are interested in closer engagement with the EU, and since their economies are not overly dependent on revenues from the energy sector. It is particularly important to do so now, as Gazprom has become persistent in attempts to increase its presence in these countries.

4.3. Pursue Research and Development Partnerships with other Energy Consumers

Oil, natural gas and coal are all finite resources. They are also the primary cause of global warming—potentially one of the most severe international threats of the 21st century. The EU is making the decision to pursue alternative and renewable energy sources. Yet the EU cannot be successful in this effort by acting alone; it needs the cooperation of other consumers, such as Japan, India, China and the US.

4.4. Establish an Energy Security Partnership with the US

Meaningful EU-US cooperation on energy security and diversification may finally be possible given the trends on both sides of the Atlantic. The US is more willing to discuss climate change and new technologies, and the EU is more willing to consider energy security within the framework of the CFSP. Both partners should take advantage of this opportunity to establish the close cooperation that is especially necessary in devising effective strategies to counter Russian monopoly control over major energy supply, transport and distribution networks across Europe and Eurasia, as well as to North Africa.

4.5. Pursue Manageable Reform Goals in Key Supplier Countries in Central Asia

The Russian and Chinese model of development is a direct challenge to the EU, transcending the specific threat to European energy security. Generally, Western policies assume economic development will lead to political reform and opening; on the contrary, the Russian/Chinese model says the two do not need to be linked (especially in energy-rich states) and that authoritarian systems are better able to preserve stability. They now point to the 'colour revolutions' that took place in more open countries of Georgia, Ukraine and Kyrgyzstan, but not in the more closed society of Uzbekistan, as proof.

The truth is that Central Asia will have its own model of development that is based on its history and traditions. Central Asia is post-Soviet, but it is not "Russian," as it has a Muslim majority population, secular Islamic traditions and culture, and strong informal networks. Simple lectures will not work. Now, the EU has begun to understand this, after the sanctions imposed on Uzbekistan after the events at Andijan brought about no opening, no dialogue, and no improvement in democracy or human rights. The EU must continue its move to an approach of "critical and constructive dialogue," which has a much greater chance of success.