The Energy Story: A Key Common Interest

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Introduction

While discussing EU–Russia relations – be they economic, political or cultural – the energy dimension always comes up sooner or later. Energy plays a major role in EU–Russia trade relations. Russia is the European Union's third biggest trading partner, both for exports and imports. For all of the EU-27's imports, Russia's share is about 10 per cent, whereas for exports it is 6 per cent. And this is largely because of energy. Energy imports cover (in value) 25 per cent of all EU imports, with Russia's share being about two-thirds.[1] Energy is therefore the main driver for the increasing economic interdependency between the two blocs. Some 50 per cent of all gas and 30 per cent of all oil imports into the EU-27 comes from Russia, whereas more than 50 per cent of all Russian energy exports go to the European Union. And these figures will increase further, in terms of money as well as volume. But the energy dimension has more to it. Energy and politics are increasingly interlinked. Political perceptions and emotions wield ever more influence on energy policy discussions or designs.

1) Eurostat figures for 2006 and 2008 yearbooks: total EU-27 imports of € 1,360 billion (Russia € 140 billion) and exports of € 1,165 billion (Russia € 72 billion); total energy imports of € 340 billion (25 per cent of all imports), and from Russia of € 94 billion (two-thirds of all imports from Russia).

Some of these components in the ongoing trends and discussions in EU–Russia energy relations will be discussed and explored in this chapter, which will briefly examine present and future trends in energy globally, then translating them to the European Union and Russia. The focus will then move to explore some of the differences within the EU-27 on the importance and leverage of Russian energy. Future trends are asking for supply security and demand security alike, whereas physical infrastructure is vital for transports and transmissions. Additionally, the political components, perceptions and experiences will be discussed. Institutional arrangements and mechanisms facilitating commercial trade relations have their own particular dimensions, such as the role of Gazprom and its bargaining powers. Finally, the chapter will move to the international legal instruments covering energy trade and investments, and will explore the external (energy) policy dimension for the European Union.

Global Energy Trends and the EU–Russia Dimension

Meeting energy needs is a basic condition for sustaining the European Union's economic growth. Even with energy efficiency increasing and energy intensity declining, energy needs are still forecasted to rise quite substantially. EU figures indicate a rise in primary energy demand from some 1,800 Mtoe (million tons of oil equivalent) in 2005 to almost 2,000 Mtoe in 2030.[2] Energy balances will continue to be largely based on oil and gas (some 60 per cent), with coal (some 15 per cent) still strong, and uranium and renewables covering basically equal shares. The next 25 years will see dramatic changes in the EU's dependence on energy imports, particularly for oil and gas. With overall energy import dependency rising from today's 55 per cent to more than 65 per cent in 2030, around 90 per cent of the oil and gas demand will then need to be covered by imports. These developments reflect the global energy picture as a whole, as analysed in the International Energy Agency's *World Energy Outlooks*.[3] The world at large faces a development where energy demand will be continuously increasing by 2030 by some 55 per cent. Fossil fuels cover more than 80 per cent of worldwide energy growth. Oil remains the single largest source with some 30 per cent, although decreasing from today's 35 per cent. Coal pushes its share from 25 per cent to 28 per cent. Gas will increase slightly from today's 21 per cent to 22 per cent. About half

2) European Communities, European Energy and Transport: Trends to 2030 – Update 2005 (Luxembourg: Office for Official Publications of the European Communities, 2006), available online at http://ec.europa.eu/dgs/energy_transport/figures/ trends_2030_update_2005/energy_transport_trends_2030_update_2005_en.pdf.

3) International Energy Agency, World Energy Outlook (Paris: OECD/IEA, 2005, 2006 and 2007).

of the increase in demand comes from the power sector, while the transport sector takes about one-fifth. The global role of electricity will therefore increase, with its use doubling and its share in final energy consumption growing from 17 per cent to 22 per cent. Global fuel use will therefore be increasingly driven by the electricity sector, as petroleum-based fuels are mostly used in transportation. All of these increases in fossil fuel consumption will drive up further import needs in many of the world's regions.

These trends will have major impact on the world's largest regions: the OECD area; and the developing countries, particularly China and India. The OECD world will face a strong decline in its share of the 'energy pie', from its present 50 per cent to some 40 per cent in 2030. The developing world, with China and India as the main drivers, will see its share growing from today's 40 per cent to more than half in 2030. Global growth shares come with about 75 per cent from the developing world, where China and India alone will be taking almost 45 per cent. Soon after 2010, China will overtake the United States as the world's largest energy consumer. The boom in China's and India's power sectors will make China a net importer of coal, taking a 7 per cent share of the world coal market in 2030. India also sees a strong rise in coal import needs, with coal import dependency moving from today's 12 per cent to almost 30 per cent in 2030. Similar patterns occur in oil and gas. Around 2025 India will be the third largest oil importer after the United States and China. Oil import dependencies are seen as rising to 80-90 per cent levels for China and India.

Increasing fossil fuel dependency is adding to public and political awareness about the availability of oil and gas resources. The global expert view[4] is to estimate proven oil reserves at some 1,200 billion barrels, an amount that could sustain present production levels for some 40 years. Figures for gas are around 185 trillion cubic metres, covering more than 60 years of current-level production. More oil and gas will need to be found, and technology development should continue as well. Coal resources are abundant, with estimates around almost one trillion tonnes compared to a yearly consumption of around 1,900 million tonnes. Oil and gas resources, however, are geographically concentrated. For oil, this basically means the Middle East/North Africa (MENA) region, where some 60 per cent of world oil reserves are located. In terms of gas, Russia and MENA combined account for around 75 per cent of world resources. Since resources are concentrated in a handful of countries, their national state-owned oil and gas companies control roughly 90 per cent of total reserves. This fact brings the issue of access to the forefront: access to develop resources in relation to global market needs. Inter-regional energy trade, more particularly in oil and gas, will grow rapidly, with the Middle East, Africa, Russia and some other

4) See figures from BP's most recent statistical yearbook, available online at http://www.bp.com/productlanding.do?categoryId=6848&contentId=7033471.

transition economies and also Latin America as the net-exporting regions, with all others as net importers.

These developments are further affected by political instability in the MENA region, with its ongoing regional conflicts and wider security threats. Geopolitical issues will therefore be strong drivers for securing energy interests and needs. We already see governments in consuming countries organizing their energy supply security, in cooperation with national energy companies from countries such as China and India, but also from Japan and Korea. In addition, direct or indirect performances from Washington, Paris, Berlin and Rome are also becoming visible. Upstream and downstream, governments are focusing ever more on energy flows. Hydrocarbon molecules are increasingly asked for their passports. It is in this context that the world may move away from the prevailing multilateral and market-based frameworks into a much more scattered system of regional and national interests, with bilateralism and regionalism playing their part in energy relations. This potential shift will certainly influence future EU–Russia energy relations. The European Union, as the world's largest global economy, must devise its role, its vision and its strategy in this context – globally and *vis-à-vis* Russia.

Russia's political–economic system is in flux.[5] Notions such as 'managed democracy' and 'bureaucratic capitalism' are indicative of the ongoing transition process. Russia's economy has been through a period of rapid growth. The Russian state has largely regained control of Russia's resources and is willing to use them to further economic recovery. Western companies saw themselves stripped of the promising energy assets that they had acquired under highly favourable terms. The market structure introduced in the 1990s and price increases for energy exports have brought Russia economic development and hard currencies. Under former President Vladimir Putin, the Russian state regained control over Russia's domestic and external policies as well as over Russia's most strategic assets. Although democratic achievements have been sacrificed in this adjustment process, most Russians seem to favour the strong state that protects Russian national interests at home and abroad. Oil and gas are at the very core of Russia's economic recovery. They are the major source of its regained self-confidence. Despite the fact that the Russian leadership asserts considerable influence over the energy sector, it would be too easy to suggest that it generally uses energy supplies as a tool in foreign policy. Some of Russia's recent actions in this regard[6] were badly communicated and gave way to heated debate in the West.

5) See Clingendael International Energy Programme, Energy as a Bond: Relations with Russia in the EU and Dutch Context (The Hague: CIEP of Clingendael Institute, August 2007), available online at http://www.clingendael.nl/publications/2007/20071000_ciep_energy_handke.pdf.

6) Gas conflict with the Ukraine in early 2006.

In Russia and within the Commonwealth of Independent States (CIS), Russian energy prices – particularly those for natural gas – are part of the Kremlin's political and economic agenda. In the European Union, however, Gazprom pursues business interests just like any other big energy corporation, relying on government support, which is not unusual for companies of that size and importance. As for the future, Russia's Medvedev–Putin leadership still has to devise its long-term energy strategy, although recent indications by Russia's Economic Development Ministry are already putting gas production and exports on the rise, from the present 650 billion cubic metres (bcm) to 750 bcm in 2015 and 880 bcm in 2030.[7] Export shares will increase from today's 30 per cent to more than 35 per cent from 2020–2030. Exports to the East will develop to some 15 per cent of all exports (with the Sakhalin area taking the lead), leaving the large majority of exports going to the West.

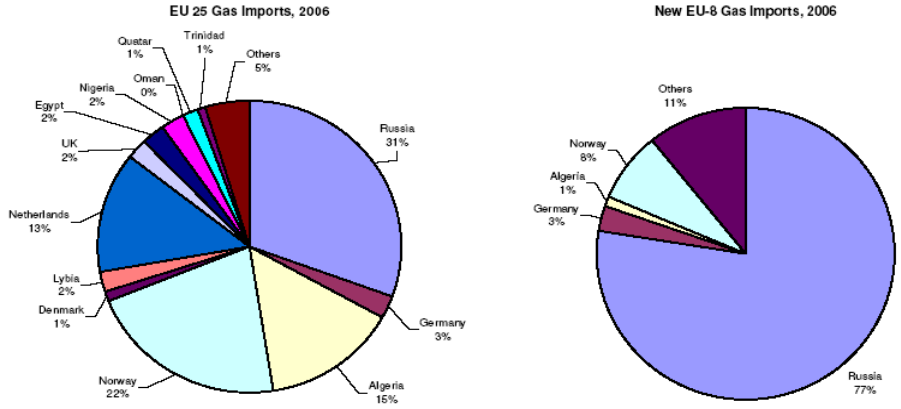
The new strategy should give more insight into the future development of Russia's energy wealth, together with prospects for its national energy balance; into the role and relevance of energy efficiency, of coal, gas and uranium in the power sector; and into the desperate drive to attract (foreign) investment in order to expand and modernize the power system. The relevance of renewable energy might be mentioned as well, although one should not expect the same kind of policy focus that is apparent elsewhere. More insight might be given into Russia's export strategies; its oil and gas exploration efforts; into the role of its infrastructure; and the way in which Russia's national interests will be translated into the strategic positioning of its 'energy giants'. Major policy changes are not to be expected, but mature and mutually beneficial long-term energy relations, such as the European Union is seeking with Russia, cannot exist without transparency of the needs and availabilities, of supply security and of demand security. Access to resources and access to markets need to go hand-in-hand. In defining European needs and perspectives, interests and accommodations, however, the wide variety of interests and approaches existing within the EU-27 have to be taken into account.

7) See European Gas Daily, 7 August 2008. Even more optimistic scenarios from the Ministry mention 900 bcm for 2020, and 950 bcm for 2030.

Gas in the European Union

There are some notable differences in the energy supply situation of the old EU-15 and the twelve new EU member states.[8] And among these new members (EU-12), one should distinguish between the eight countries from the sphere of the former Soviet Union (EU-8) and the others, and within the EU-8 between the five Eastern and Central European countries (EU-5) and the three former Soviet republics (EU-3).[9] Figure 1 gives an indication of these differences with respect to the structure of gas imports. As we can see, approaching the question of future EU–Russia energy relations from differing perspectives is understandable.

Figure 1: EU-25 and EU-8 Gas Import Structures



The issue becomes even more interesting if one compares gas dependency for overall GDP in the EU-8 economies. Per million euros (at 2000 prices) the EU-25's need is rather flat over the 1994–2004 period, with a gas input of some 20 toe (tons of oil equivalent), whereas most others in the EU-8 figure around a level of 150 toe. Because of the large coal basis in their energy mix, Poland and Slovenia are seeing levels around 40 toe, with Slovakia at the high end with an input factor of more than 200 toe.

It would also be interesting to elaborate on the role of Russian gas, as plotted in Figure 2. For the 2006 situation, the gas share in the energy mix

8) This section uses information from Peter Kaderjak's (of REKK-Hungary) presentation during the Clingendael seminar on 'Evolving Terms for EU–Russia Relations', 31 January 2008.

9) The EU-5 are: Poland; Czech Republic; Slovakia; Hungary; and Slovenia. The EU-3 are: Latvia; Estonia; and Lithuania. Malta and Cyprus are not considered in this context, whereas Bulgaria and Romania are not always mentioned in overall statistical data.

and the share of Russian gas in overall gas consumption are given for the EU-27 and Ukraine, Belarus and Turkey. There are again some striking differences. Except for Poland, Bulgaria and the Czech Republic, Eastern and Central Europe is running on a gas share of beyond 30 per cent, as do the United Kingdom and the Netherlands (although they hardly need Russian gas). Not all of the EU-8 countries, however, are equally dependent on Russian gas. Poland has a meaningful contract with Turkmenistan and some smaller contracts with Germany and Norway. Ukraine, like Romania, has substantial domestic production and has signed contracts with Turkmenistan, although these flows transit Russia through Gazprom pipelines.

Figure 2: European Gas and Russian Gas Import Dependencies

More generally, one may note that natural gas dependency is substantially larger in the EU-8 than in the EU-15, where especially Hungary and Latvia have additional high gas rates in power generation. Gas import dependency in the EU-8 is also significantly higher than in the EU-15, with a very strong reliance on Russian gas imports.

Although these trends will merge in the next decades, the starting conditions and experiences are perceived differently among the EU-15 and EU-8. In the EU-15 countries, Russia may be seen as part of the solution, whereas for the EU-8, Russia is perceived as part of the problem. To some of the EU-8 countries, therefore, the south-eastern Nabucco pipeline, which has been designed to bypass Russia, is seen as a major way out, whereas the northern EU-8 members are considering whether to build liquefied natural gas (LNG) terminals on their Baltic shores. More generally, these differences between the EU-8 and EU-15 also explain, to some extent at least, the different approaches towards EU–Russia relations in a more general way. In this respect, it would be helpful if the European Union developed internal solidarity mechanisms to manage regional and unforeseen energy supply disruptions, including for natural gas.

Future EU Energy Trends and Uncertainties

From the global energy trends and the role of the European Union, we now turn to the development of EU energy imports, focusing on supply security aspects and on supporting infrastructures. Russia's relevance is primarily based on gas. Future EU gas import needs are driven by the European Union's climate and energy policies. The 2007 Spring European Council set ambitious goals – the triple 20s in 2020 – comparing 1990 as the base year, it formulated: a 20 per cent reduction in CO^2 emissions; a 20 per cent share of renewable energy (RE) in the final energy mix; and a 20 per cent more-energy-efficient economy.[10] In its *Green Package* of January 2008, the European Commission translated these targets and commitments into a set of concrete proposals,[11] focusing on: the ETS (Emission Trading System); the role of RE (with specific national targets); and carbon capture and storage (CCS). Many of these options are still in early stages of development and they compete with other global issues, such as economic growth and competitiveness, global trade, food production and biodiversity.

Natural gas demand in the EU is expected to increase further, mainly driven by the power sector. Yet major uncertainties about the extent of natural gas use in the EU's power sector remain, as other fuel options (such as coal, nuclear and renewable energy) are gaining more attention. Price, supply security and technology perspectives, they are all influencing the amounts needed for imported gas. Future nuclear policies are another dominating factor, loaded with – mainly political – uncertainties. The possible consequences for EU gas import needs are illustrated in Figure 3, which shows that a combination of the various options might already reduce EU import needs by some 100 bcm per year by 2015. Although realization of these policy targets is questionable, it will influence strategies for gas producers and pipeline companies, which are wondering to what extent they need to factor in the various policy scenarios. When the European Union is demanding security of supply, security of demand on the producer's side is a factor that must also be recognized.

In a recent Clingendael International Energy Programme (CIEP) paper on gas supply perspectives, a possible gas demand and supply scenario is sketched, leading to a requirement for Russian gas deliveries to EU-27 markets in the order of 100 to 130 bcm per year by 2010, strongly increasing thereafter to some 170 to 250 bcm per year by 2015.[12] Another indication for

10) Council of the European Union, Presidency Conclusions of the Brussels European Council, 8–9 March 2007, 7224/07.

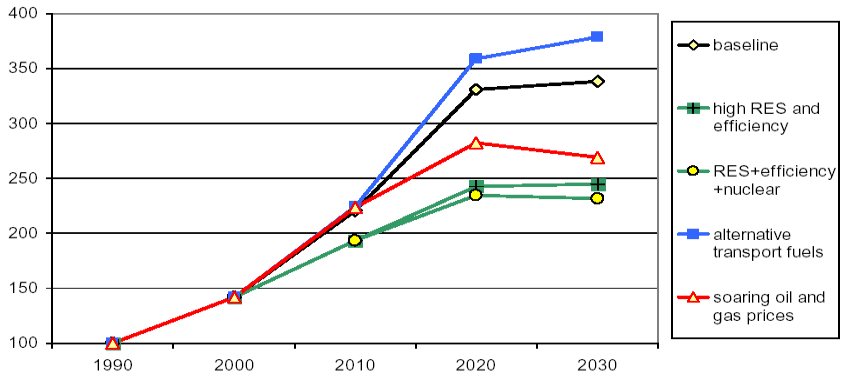
11) See the Green Package website: http://ec.europa.eu/energy/climate_actions/index_en.htm.

12) Clingendael International Energy Programme, The Gas Supply Outlook for Europe: The Roles of Pipeline Gas and LNG (The Hague: CIEP of Clingendael Institute, August 2008), available online at http://www.clingendael.nl/publications/2008/20080800_ciep_energy.pdf.

future EU gas demand comes from Eurogas (Figure 4), which puts gas demand in 2020 at around 590–640 bcm, with expected imports of around 70 per cent, including from Norway. Russia would cover some 180–190 bcm, as the advanced projects include the Nord Stream project and contracts. Uncertain supplies would still take some 150 bcm in 2020.

As indicated, the totals for gas import demands are uncertain, as is the supply side. The figures for Russia show some ambitious targets for Russian export levels to the EU-27 by 2015. EU calls on Russian exports will also be influenced by the call on LNG imports, as in this global market environment there is an increasing imbalance between liquefaction capacity on the producing side in relation to the receiving and regasification capacity in importing countries.[13] Security of supply will not necessarily be compromised in a physical sense, even if Russian investments fall short of the requirements needed. Prices, however, might be bound to rise in order to attract additional LNG, while demand reductions might also contribute to supply security. The increasing demand for imports also highlights the need for additional gas infrastructure, including notably LNG-receiving and regasification infrastructure, but basically concentrating on long-haul pipelines. Especially these pipelines, with their wider international and geopolitical dimensions and the need to transit other countries, add further complexity to the European Union's (external) energy policy, in particular *vis-à-vis* Russia. Figure 3 gives an indication of gas export potentials to the EU market.

Figure 3: EU-27: Net Gas Imports: Baseline and Scenarios (with 1990 =100)



Source: EU–OPEC Roundtable on Energy Policies, 30 May 2007, Brussels. Converting the index numbers to cubic metres, the high RES and efficiency scenario would reduce required EU imports by 2015 by about 100 bcm per year compared to the reference scenario.

13) The CIEP's August 2008 paper, The Gas Supply Outlook for Europe, uses overall European import demand margins for 2015 of between 470 and 550 bcm, with pipeline imports ranging between 330 and 410 bcm, putting the burden further on LNG between 220 and 60.

Figure 4: Import Dependency of the EU Gas Market in 2020 (from Eurogas 2006 data)

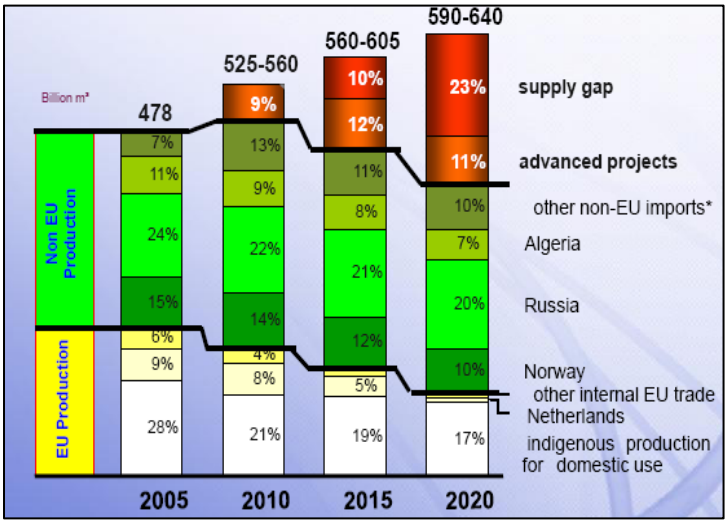


Figure 5: Gas Export Potentials to EU Markets (Energy Corridors, DGTREN Study, 2007)

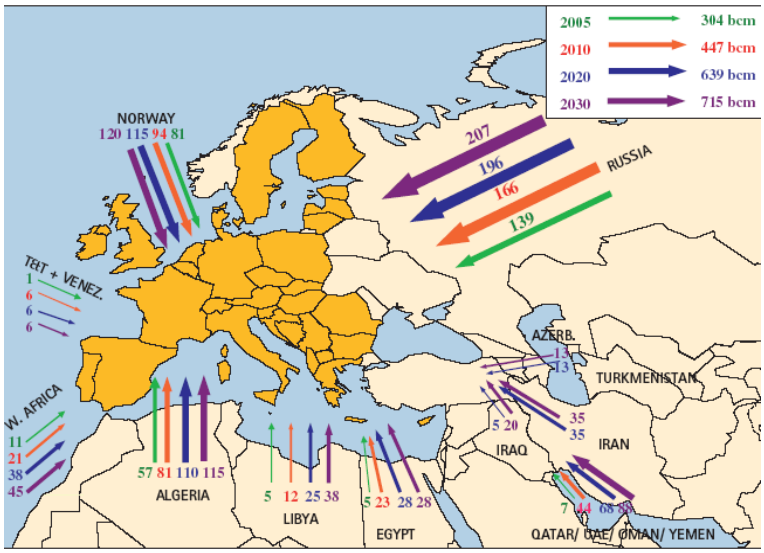
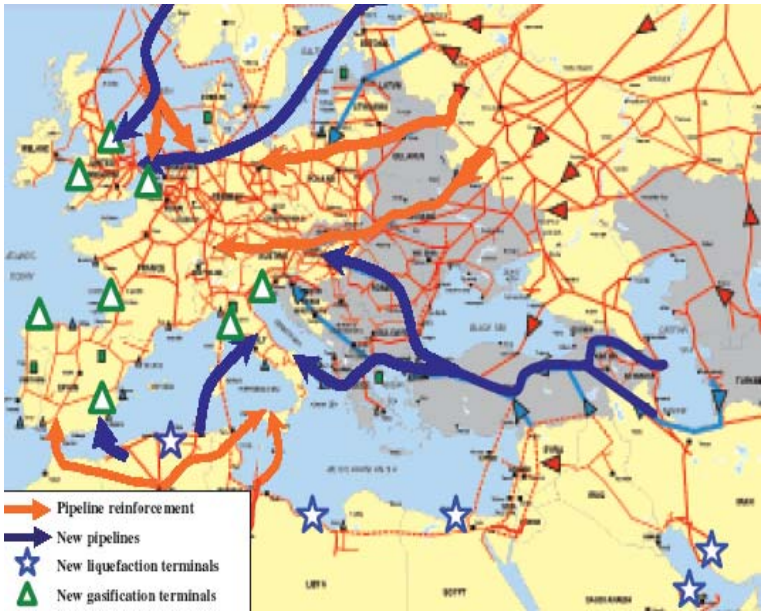


Figure 6 gives an indication of major existing and planned pipeline capacities for East–West gas transports to the EU market. As is shown quite clearly, existing East–West pipelines always transit other countries and therefore complicate the interests of the front and back ends of gas flows and the value

chains. Transit countries do not usually want to stick to 'only' asking for transit fees, but want to be involved in the gas commodity as well, for their own consumption and for trade reasons. This has generated a number of conflicts, both in a commercial sense but also politically. This political dimension will be discussed further in the next section.

Figure 6: Gas Corridor Developments to EU Markets (source: DGTREN, OME)



The major new developments are mentioned in Table 1, the two most controversial being the Nord Stream and the Nabucco pipelines. They are controversial because of their strong political components, as they pass through respectively the Baltic states and Poland, and Russia. This political dimension was reaffirmed as a result of the Russo-Georgian war in August 2008. Some would argue that the Russian intervention puts the Nord Stream line at additional risk, giving more clout to the Nabucco line. Others tend to believe, however, that the impact of the conflict on the two projects will remain marginal. Relevant in this respect is the already operational BTC line, which transports oil from the port of Azeri Baku on the Caspian Sea via Tbilisi in Georgia to the Turkish Mediterranean port of Ceyhan. This oil transport line through the Georgian corridor was not at risk during the conflict.

The proposed Nord Stream line, with its overall capacity of 55 bcm per year, will connect the Russian port of Vyborg to Greifswald in Germany through the Baltic and East Seas, thus bypassing the Baltic countries and Poland. The project – a joint venture by Gazprom and the German

companies Eon and Wintershall, together with the Dutch company Gasunie – has generated fierce political agonies within the European Union. Poland and other countries are complaining about the European Union's lack of solidarity *vis-à-vis* Russia, whereas Sweden and Finland are concerned about the environmental impact of the pipeline. It cannot be denied that bypassing traditional transit countries creates additional supply security for Western European markets. Nord Stream will be filled by gas from the existing fields in the Nadym-Pur-Taz district and from the planned Shtokman and Yamal Peninsula fields. By making a substantial investment in Nord Stream, it is argued that Gazprom, as the world's leading natural gas producer, is committing itself to continuous long-term deliveries to the European Union. Despite continuing debate within the European Union on the need to find a common approach, Nord Stream is expected to be built anyway.

The 25–30 bcm per year Nabucco pipeline – connecting the Caspian Basin through Turkey to Bulgaria, continuing through Romania and Hungary to Austria, where it is connected to the European gas grid – is supposed to create a gas corridor that is independent of Russian influence. This pipeline, which is heavily backed diplomatically by the United States, is a joint venture of the gas companies of the five countries mentioned (that is, Turkey, Bulgaria, Romania, Hungary and Austria), together with German RWE. It also has a strong political dimension. Different from Nord Stream, which could be seen as building a much-needed road for already-contracted gas traffic,[14] Nabucco is planned as a road for traffic to come. Despite a number of political commitments about filling the line with Azeri and Turkmen gas, traffic is still uncertain. Nabucco is uncertain on the gas supply side; it will have to be connected further upstream. Options would include Azeri gas using the South Caucasus pipeline (to a maximum of 16 bcm per year), Turkmen gas (either through swap deals, Iranian transport or a new pipeline crossing the Caspian Sea), or directly with Iranian gas using the existing Tabriz–Erzurum pipeline (with a capacity of 20 bcm per year). It could also be argued that Nabucco would only make sense when gas is contracted directly from Iran, which is heavily opposed, however, from Washington. In conclusion, Nabucco is uncertain,[15] all the more so since another project has emerged in the mean time – South Stream.

South Stream is a joint venture by Gazprom and the Italian company ENI, connecting Beregovaya on the Russian Black Sea coast to Varna in Bulgaria and from there onwards in two directions: southwards via Greece to Italy; and northwards via Serbia to Hungary and Austria. The pipeline has a comparable capacity to Nabucco, with an investment forecast of around 10 billion and a planned commissioning date of late 2013. South Stream is

14) This is largely true for the first phase of the line with a capacity of 27.5 bcm per year.

15) There are also difficulties on the Turkish side, which is not satisfied with its 'only'-transit role.

bypassing Turkey, including Turkish Black Sea waters. Different from Nord Stream, although Gazprom is backing and investing in the line, no gas contracts have as yet been concluded. Neither is it clear which Gazprom production would be made available for the South Stream route. Austria, Hungary and Bulgaria have all jumped on this new opportunity, however, which seems realistic as Gazprom and ENI are already cooperating in the existing Blue Stream pipeline linking Beregovaya to Durusa (near Samsun) on the Turkish Black Sea coast. South Stream is also considered an alternative to expanding the Blue Stream line, but is not generally seen as an alternative to Nabucco. In this geopolitical ballgame of bringing Eastern gas to the West, another option has emerged – the Georgia–Ukraine White Stream gas link – which could also transport Turkmen gas. As yet, however, White Stream is still more of a proposal than a project.

In conclusion, on these energy trends and uncertainties it should be clear that all of these pipeline projects for bringing natural gas from the East to the West have their pros, cons and still ongoing uncertainties. This risks further discussion and even distrust among EU member states, frustrating the European Union's external position as well. It could therefore be helpful to communicate more openly on relevant developments, and in a timely fashion, within the EU-27. This could be done in conjunction with existing EU mechanisms for energy consultation, such as the Gas Coordination Group or the EU correspondence network on early warning of supply disruptions.

Table 1: Some Major Gas Pipeline Projects to EU Markets (source: DGTREN)

Project	Supplier	From	To	Capacity [bcm]	Investment [M €]	Foreseen Start-up
Medgaz	Algeria	Hassi R'Mel	Spain	8 to 10	1300	End 2008
GALSI	Algeria	Hassi R'Mel	Italy	8 to 10	1200	2009-2010
ITG-IGI	Caspian	Greece	Italy	8 to 10	950 (IGI)	2011
Nord Stream	Russia	Vyborg	Germany	2x 27.5	4000	2010
Langeled	Norway	Ormen Lange	UK	22 to 24	1000	2006-2007
Nabucco	Caspian	Turkish border	Austria	25 to 30	4600	2010
Total additional supply capacity to Europe				98.5 to 139		

Political Dimensions: Perception and Reality

Energy relations and political power are becoming more and more interlinked. The ability to exert political power by commanding energy flows stems from the dependence of the importing country's economy and society on imported energy carriers. Interruptions or sudden price increases can disturb economic activity, lead to income losses and cause strong inconvenience in daily life, especially if heating systems are affected in winter time. Governments thus have an interest in preserving energy supply security and in preventing exporters from interrupting energy flows or increasing prices. Such an interest becomes stronger the more dependent that a country is on individual energy suppliers and the fewer alternatives that can be arranged. Governments might be tempted to accommodate the wishes of energy exporters in other policy areas if they receive secure and reasonably priced energy in return. However, employing energy pressure with the aim of destabilizing an 'inconvenient' government or pursuing political demands is not a sure strategy and has a number of negative consequences for the pressuring party. External pressure on a country for political reasons can have a unifying effect on that country's population and can counter-productively result in strengthening the position of the government in office.

Additionally, using energy deliveries as a political weapon might endanger the financial position of governments that strongly depend on income from these deliveries. All of the countries that could currently wield significant political power through energy are very much dependent on their energy exports for their economies and state budgets. The main, and arguably only, example in which the suspension of energy deliveries was explicitly used to achieve concrete political objectives was the oil embargo directed at the United States, Denmark and the Netherlands in 1973 by the Organization of Arab Petroleum-Exporting Countries (OAPEC). This embargo and its accompanying price increases were major factors in accelerating the development of alternative oil supplies – for example, those located in the North Sea, Alaska and the Gulf of Mexico – as well as a decline in oil consumption.[16] Serious damage was done to the reputation (in terms of reliability) of major oil-exporting countries. Prices eventually dropped and major exporting countries suffered real income losses for almost two decades.

With respect to natural gas deliveries, European policy-makers are especially concerned about Russia. Unlike the other major suppliers of European gas markets, Russia is generally seen as a country with wider geopolitical ambitions. It should, however, be noted that during the Soviet era, gas supplies from Russia to Western European markets were never put at

16) See Robbert Willenborg, Christoph Tönjes and Wilbur Perlot, 'Europe's Oil Defences: An Analysis of Europe's Oil Supply Vulnerability and its Emergency Oil Stockholding Systems', in The Journal of Energy Literature, vol. X, no. 2, 2004, pp. 3–49.

risk. On the other hand, however, there is recent evidence of gas supply distortions from Russia to the CIS countries, gas relations that are much more politically defined than those between Russia and Western Europe. A 2007 analysis of Russian energy leverages to the CIS gives a total of 55 incidents, including 38 supply cuts, during the Yeltsin and Putin presidencies (1991–2006).[17] Although the number of incidents under Putin was higher than under Yeltsin, 29 and 26 respectively, the number of supply cuts decreased from 22 to 16. The report concludes that the individual cases were primarily guided by an ambition to reach tactical goals. Although in some instances they were successful, in the most important cases they failed: preventing NATO or EU membership; influencing election outcomes; or gaining more control in major transit lines.

Well-publicized recent incidents have been seen by many observers as additional examples of a Russian government that is willing to employ energy deliveries, in particular those of natural gas, to achieve political objectives. Strong language is used, but the economic and commercial context of events is often overlooked.[18]

Ukrainian–Russian gas relations throughout the 1990s were characterized by recurring non-payment of natural gas deliveries from Russia to Ukraine, occasional diversions of Russian gas in transit and, in consequence, the accumulation of debt on the Ukrainian side. Settlement of the issues had been reached by 2004, including arrangements for debt settlement. The bundle of agreements also included provisions for the terms under which Russian gas was transited through Ukraine to Western Europe. Russia would pay in kind for transit, with implied transit fees and gas prices that were fixed through 2009. Transit payment gas would represent a very large share of all of the Russian gas actually delivered to Ukraine, with the remaining Ukrainian import requirements primarily met by Turkmen gas. Transit fees as well as gas prices were well below those paid in Western European countries. From 2004 onwards, gas prices charged to West European customers progressively increased in line with international oil prices, widening the gap with the implicit prices that Ukraine was paying.

Continuation of this situation would actually have meant that Russia would continuingly and increasingly subsidize the Ukrainian economy. Although the motives for increasing prices were clear and understandable, the way that they were imposed remained rather opaque. Russia's Gazprom stated that the existing contract with Ukraine was subject to annual

17) Jakob Hedenskog and Robert Larsson, Russian Leverage on the CIS and the Baltic States (Stockholm: Swedish Defence Research Agency, 2007).

18) Commentators often fail to link the tangible alteration of energy flows to concrete non-economic political objectives, but rather state general political objectives without identifying concrete ones. For example, see Zveno Baran, Lithuanian Energy Security: Challenges and Choices, White Paper (Washington DC: Hudson Institute, December 2006).

endorsement by 'Intergovernmental Protocols', basically suggesting that prices could be renegotiated on an annual basis. On 1 January 2006, Gazprom applied its earlier ultimatum and stopped gas deliveries to Ukraine, stating that sufficient transit gas for European customers, however, would still be injected into Ukrainian pipelines. It is unclear whether any Turkmen gas destined for Ukrainian markets still reached Ukraine. In any case, European customers suffered significant reductions in deliveries from the Ukrainian system, which suggested that transit gas was being diverted to Ukrainian markets. The Western media's outcry certainly contributed to the speediness of the conflict's resolution, which led to a re-establishment of gas flows by 4 January 2006. The commercial solution boiled down to Ukraine being supplied by a new intermediary, RosUkrEnergo, whose supplies would primarily be made up of Central Asian gas, which could be obtained at relatively low prices. It is still unclear whether either of the two sides actually broke existing contracts in 2006. What *is* clear, however, is that existing contracts did not offer much protection against price increases for Russian or Central Asian gas. It is also evident that during the period 2006–2008, a large number of little incidents and threats occurred with respect to Russian gas deliveries to the Ukraine. Some may have been related to the ongoing political struggles in Kiev, sometimes leading to rather shady commercial relations and arrangements. Never, however, did Russia pose explicit political demands. To our knowledge, negotiations almost always concentrated on the pricing of natural gas. Meanwhile, it seems that full settlements have been reached, both with respect to pricing and to the commercial partners involved, but as the political situation in Kiev remains very unstable, the gas conflict might return again.

In April and May 2007 Russia and Estonia were in conflict about the relocation of a statue honouring the Red Army from the city centre of Tallinn, Estonia's capital, to a less prominent spot. Tallinn is one of the major energy export ports of the Baltic Sea, shipping mainly Russian fuel oil and coal, which is transported to Tallinn mainly by rail. The port underwent various extensions in 2004 and 2005. During the course of the conflict, the Russian state railway announced that it would schedule repair works that might disturb oil transit flows to Tallinn's harbours. The railway company denied that these repairs were related to the conflict over the monument and it remained unclear as to what extent actual flows were affected. Russian government officials hinted at the possibility of economic sanctions, including bypassing Estonian ports for the export of Russian energy. Reportedly, by July 2007 fuel oil exports via Estonia had been halved, and plans to reroute fuel oil exports via Russian ports were firming up. Such diversion plans fit into a longer-term Russian strategy of prioritizing Russian ports over foreign ports, thus retaining a larger share of economic rent within the Russian economy. Aside from this strategy, shifting oil transport from railways to pipelines might simply make good economic sense. However, the timing of the apparent

acceleration of this strategy feeds suspicions that political motives related to the recent dispute between Estonia and Russia also play a role.

Oil deliveries to Lithuania through the Druzhba pipeline were also turned off in July 2006, after the Lithuanian Mazeiku oil refinery was sold to Polish PKN Orlen. Vilnius has been insisting ever since that turning off the pipeline was politically motivated, although Russia stated in 2006 that Druzhba was turned off for technical reasons and that repairs would take about a year.

In the post-Soviet era, Belarus has received natural gas deliveries from Gazprom at prices that have mostly been lower than for any other non-Russian customers. One justification for the low energy prices granted to Belarus was the prospect of an economic and political union of Russia and Belarus, implying the supply of energy to Belarus at Russia's low domestic prices. Additionally, since the early 1990s, Gazprom has sought control of Belarus' gas network operator Beltransgas in order to increase supply security of the transit flows to Poland (directly) and other Western markets (via Ukraine) through the Northern Lights pipeline system. Despite the low prices charged, Belarus has been in chronic and very significant default on payments for natural gas. In the 2000s, the provision of natural gas to Belarus at Russian domestic prices was made conditional on the sale of 50 per cent of Beltransgas' transit and transmission network to Gazprom, which led to discussions about the correct valuation of the network. In relation to this, Gazprom argued for higher gas prices, to increase stepwise to 'European levels' by 2011. By the end of 2006 a deal had been made on prices as well as on the network.

January 2007 also saw the escalation of a conflict between Russia and Belarus about oil deliveries and transit. Belarus had received oil deliveries at relatively low domestic Russian prices, again in view of a prospective economic and political union. Belarus processes the crude oil in domestic refineries and exports a significant share to Western markets, achieving comparably high prices. An agreement that dates back to 1995 assigned 85 per cent of the export duties that were levied on these exports to Russia and 15 per cent to the Belarus government, reflecting the idea that a significant share of the profits made was due to the provision of crude oil at domestic Russian prices. The agreement was never enforced. In 2001 Belarus cancelled it unilaterally, stating that the 'provisions of the […] agreement were no longer acceptable to Belarus from the economic perspective'. Russia attempted to revitalize the agreement, but when Belarus still refused, it established an export duty. Belarus countered this measure with a transit duty on Russian oil to Western markets. Russia refused to pay, which motivated Belarus to take transiting oil from the pipeline. This again triggered a halt in Russian oil deliveries to Belarus, as well as oil in transit through the Druzhba pipeline, affecting Russian oil customers in Ukraine, Germany, Poland, the Slovak Republic and the Czech Republic. Belarus eventually stepped back and lifted the transit duty on 10 January 2007, which was followed by a resumption of oil flows. Both the gas conflict and the oil struggle appear to

have been primarily motivated by the wish to retain a larger share of economic rent within the Russian Federation. There were no political demands made in those two disputes. Although press coverage generally questioned the reliability of Russia as an energy provider, the two disputes between Russia and Belarus show little direct evidence of gas deliveries being employed as a tool of political pressure.

Russia and the Czech Republic quarrelled over gas deliveries after the Czech government signed an agreement with the United States in July 2008 on the location of part of a missile defence system on Czech territory. As a reaction and without explanation, Russia reduced its oil deliveries to the Czech Republic, exported through the Druzhba pipeline, by almost half. The Russians first blamed technical causes for the delivery reduction; later in July 2008, the cuts were explained by a lack of available crude, based on Russian oil industry decisions to refine more at home. It remains unclear, however, to what extent this shortfall is directly related to the missile agreement, because a number of oil and energy-related issues *are* at stake between Russia and the countries in the region. These relate to discussions on the forthcoming Odessa–Brody pipeline, on (Russian) ownership transfers in refineries and on the gas pipeline projects.

Apart from actually suspending gas deliveries, political influence can be exerted through pricing, if the supplying party has a dominant position in certain markets. Political support can be 'bought' by charging low prices, and political opponents can be punished by being charged relatively high prices.

Table 2: Russian Gas Prices in 2007 (US$/million cubic metres, approximate figures)

Ukraine	230
Georgia	235
Moldova	170
Baltic States	~240
Armenia	110
Belarus	100
Western Europe	~250
Russia	~50
Sources: WGI, various newspaper articles	

Table 2 gives an overview of prices charged by Gazprom to export customers in 2007, some of which were the result of gas price negotiations that included the temporary halt of gas deliveries, or threat thereof, to the respective export markets.[19] There are differences in the prices applied that are beyond purely

19) In addition to the delivery stop to Ukraine, deliveries to Moldova were interrupted as well in a pricing dispute at the beginning of 2006. Georgia accepted a doubling of the gas price

economic explanations such as differences in transport costs, especially when comparing the prices charged to Armenia and Belarus with those charged to Georgia and Ukraine. In the case of Armenia, a relatively low price could be achieved as part of a package deal that transferred control of a pipeline to Gazprom.[20] In the case of Belarus, Gazprom paid a reasonable price for shares in the network. Bing politically close to Russia or ceding infrastructure that Russia considers as 'strategic' could thus result in lower prices for importing states, making gas deliveries political, at least to some extent. However, the differences in pricing can also partly be explained by the outcome of negotiations that led to the highest 'bearable' prices for specific countries. For Belarus and Moldova it has been agreed that prices will gradually rise to net-back parity[21] with Western European markets, whereas Armenia managed to obtain a fixed price at least through 2009.

Finally, the recent Georgian conflict has to be mentioned, if only because it is occasionally placed within the energy context. As a result of Russia's strengthened position in the region, the role of Georgia's energy corridor has been put at risk for Caspian oil, making Russian routes to EU markets all the more important.

The conclusion that the Russian government and Gazprom use energy as a tool to pursue geopolitical objectives needs qualification. Some of the incidents that have been quoted as examples of such behaviour reveal the prime relevance of economic objectives, which were largely aimed at optimizing revenues for the Russian economy and removing what were in effect subsidies to foreign states. The differential gas pricing that is applied and the diversion of oil exports away from Baltic ports suggest that political motives might have influenced the shape of external economic and energy policies, although evidence is weak. Russia appears to be careful in linking political demands to the suspension of contracted energy flows, supposedly in an attempt to preserve or restore the image of a reliable energy supplier and trade partner.

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in December 2006 when supply was made conditional on accepting the new supply terms. See 'Gazprom of Russia to Double Natural Gas Price for Georgia', International Herald Tribune, 22 December 2006; and 'Moldova Agrees Russian Gas Deal', BBC News, 17 January 2006.

20) 'Gazprom Reaches Deal with Armenia', International Herald Tribune, 7 April 2006. The pipeline in question delivers Iranian gas to Armenia, and speculations were made as to whether it would provide a potential future export corridor for Iranian gas to Europe or Georgia and increase competition for Russia.

21) Net back parity price denotes a price equivalent to that obtained in a reference market corrected for differences in transportation costs.

Gazprom and its Bargaining Powers

The energy sector is at the heart of Russian economic policies and the Russian state is recovering its control of major companies and assets. This approach is conducted within Russia's current market economy and cannot be understood as renationalization. The policies are aimed at developing strong positions for the Russian energy industry in global energy markets. Economic rationale prevails in these policies, which are in line with modern economic theory on industrial economics. Major investments will have to be made in the Russian energy sectors in order to modernize outdated equipment and infrastructure and to keep up with growing domestic demand. Moreover, because of declining production at older fields, Russian energy companies will have to make major efforts to explore and develop new oil and gas fields. The timely beginning of these projects and the use of modern technology will be crucial for securing energy flows to all customers.

It is within this context that the role of Gazprom in EU markets has raised concerns from European policy-makers. Liberalization of the EU gas market has strongly influenced gas relations with Russia, allowing for more competition and resulting in uncertainties about the relevance of long-term contracts. Gazprom, on its side, reconsiders the question of how to secure its interest in its major export market. From a relationship of bilateral gas contracts with EU gas companies (directly or indirectly supported by the national governments), as markets are liberalizing, a new approach to secure market shares is beginning to evolve. There is some trepidation that Gazprom's investment strategy in the EU gas market will lead to a position of market dominance in an increasingly import-dependent EU market. The discussion on Gazprom's market strategy urgently needs factual information. The box below gives some insight into Gazprom's downstream activities in the EU-27.[22]

22) Jochem Meijknecht, Bedrijfsbelangen Gazprom in EU-27 in 2007 (The Hague: CIEP of Clingendael Institute, 2008), available online at http://www.clingendael.nl/publications/2008/20080400_ciep_misc_gazprom%20-n-eu27.pdf.

Gazprom in EU Markets

Gazprom, 50.002 per cent owned by the Russian state, has since July 2006 used its 100 per cent subsidiary Gazpromexport, with its monopoly on all Russian gas exports, as a vehicle for positioning its role in the lucrative EU gas market. It is Gazprom's stated strategy to include a wide diversification of its core businesses, gas, oil and power generation, and a reinforcement of vertical integration. To that extent, Gazprom has further entered the value chain, moving from upstream to midstream and downstream as well. Joint ventures have been concluded in a number of EU countries, with the 50/50 WIEH (Wintershall Erdgas Handelshaus Gmbh) with German BASF as the most important. But this model is also being followed in France, Finland, Hungary, Austria and Slovakia. For the UK market, Gazprom created its 100 per cent subsidiary GTM (Gazprom Trading & Marketing), with the ambition of becoming a one-stop energy shop for commercial users of gas, electricity and heat.

These developments and their political concerns were translated into the so-called 'Gazprom clause' in the 3rd Energy Market package, which the EU Commission tabled in September 2007. This is a proposal to prohibit controlling network ownerships by non-EU entities unless the EU has concluded an agreement with the relevant government on a reciprocal basis. This idea is interpreted as principally directed at Gazprom, providing a direct linkage between internal (gas) market designs and direct energy (gas) supply security. Bargaining power is used as an argument and it could indeed strengthen negotiating positions *vis-à-vis* third countries, when their industries hold meaningful interests in energy infrastructure within the European Union. Frequent announcements by Gazprom to enter directly the EU's downstream markets might, however, bring further complications.[23] The proposal has largely been accepted in Council discussions, but has raised questions in the European Parliament. It is also expected to play a role in the new rounds of EU–Russia discussions on the new partnership agreement.

Within the EU, Gazprom plays a role in industry structures too. The current consolidation of Europe's energy industry helps to increase European companies' bargaining power as the customer bases of the merged entities form larger units and interdependence between individual importers and external producers grows. Moreover, with European gas importers becoming more European in ownership structure, the interest of individual member states' governments with respect to external gas matters will move towards alignment, improving the scope for common external energy policies. It is

23) See, for instance, the 28 January 2008 report in the International Herald Tribune, available online at http://www.iht.com/articles/reuters/2008/01/28/business/OUKBS-UK-RUSSIA-BRITAIN-GAZPROM.php.

important, however, to withstand the temptation to loosen internal competition policies with the objective of creating external bargaining power. Eliminating or restricting competition in the internal market does not appear to be the right answer to external producers' strong market positions.

In the discussion about how to manage Gazprom's market power, the establishment of a 'single buyer' for import gas or the stronger coordination of import contracts is also mentioned.[24] In the case of the single buyer model, such an entity would be the counter-party for all new imported gas, which could then be auctioned at the EU border to downstream companies. Although such an approach would probably help to set a counterweight to the bargaining power of major suppliers in tight markets, it remains a rather problematic suggestion. Such an approach would establish a strong role for a European public body (the single buyer), would very much interfere with long-term established relationships between producers and current importers, and it would probably add a few layers of bureaucracy. More importantly, such an approach would be especially suited to an environment of tight markets and producer power, but it would probably be difficult to abolish in times when the market environment shifts back to a buyers' market. It might be worth exploring the merits and disadvantages of this idea in more depth, but its benefits would probably be limited. Moreover, the diverging interests among industry players and EU member state governments make implementation of this mechanism very unlikely.

Designing and Managing EU–Russia Energy Relations

In the discussion about the European Union's attempts to manage its energy relations with Russia, the old paradigm holds that strategy should come for policy and instruments. Strategy includes reflection on the European Union's global role in the wider energy theatre, a theatre that will no longer be concentrated in the Atlantic hemisphere and its relations with the Middle East. Tomorrow's play will have new and stronger actors, such as China and India, Russia and Brazil, the United States and, depending on the degree of effectiveness of the European Union as a single actor, the EU as well. The EU, however, will most probably play a secondary, rather than a primary, role.

Although the EU-27 will remain the world's largest trading partner for the time being, as well as the largest market outlet for Russia's energy exports, EU–Russia energy relations will lose their preferential nature. US and Asian markets are becoming as interesting and challenging for Gazprom and

24) Dominique Finon and Catherine Locatelli, Russian and European Gas Interdependence: Can Market Forces Balance Out Geopolitics?, Working Paper (Paris: Centre International de Recherche sur l'Environnement et le Développement, February 2007).

Rosneft as European markets. And this reality will have to be taken into account when developing EU external policies *vis-à-vis* Russia. It is clear, however, that the EU has not yet developed a full policy toolbox to underpin any full-fledged external energy policy under the conditions of market integration.[25]

Concentrating further on strategy and gas from Russia, it should be noted that European gas markets were traditionally supplied by three large exporters: Russia; Norway; and Algeria. The relative concentration of these external supplies was balanced by substantial EU domestic production capacities, although regional dependencies on one supplier could be rather extensive. Diversification was limited to mixing and matching domestic production in the European Union and importing from one or two of the external suppliers. Algeria mainly supplied southern European gas markets; Norway supplied mainly the north-west European market and the United Kingdom; and only Russia supplied both the continental northern, central and southern European markets. The limited level of diversification was because of the inflexible nature of pipeline supplies and bilateral delivery contracts. West Germany, France and Italy therefore decided in the 1980s to contract Soviet gas and to participate in extending the Unified Gas System (UGS) into Europe. European countries were about to embark on a long-term relationship with the Soviet Union through the pipeline, as embodied in the long-term take-or-pay gas contracts. The Reagan administration in the United States, however, protested strongly against becoming so import-dependent on a geopolitical adversary. The United States was afraid that the West European gas contracts could strengthen the Soviet economy and buttress its capability to challenge the United States strategically around the world, including in Europe. Gas imports from the Soviet Union were a serious bone of contention in the transatlantic relationship, not unlike today, and illustrated the fundamentally different policy of continental Western Europe's leading countries in the regional balance of power.

The dependence of the Soviet Union – and later Russia – on hard currency income from its energy deliveries, as well as the inflexibility of its gas transportation infrastructure, reduced the potential threat of disrupting supplies, particularly when the limits to growth and flexibility of the centrally planned economy were reached. The collapse of the Berlin Wall in the late 1980s and the breakup of the Soviet Union in the early 1990s heralded profound changes in the institutional make-up of economic and political relations on the European/Asian continent, also impacting upon energy trade and diplomacy, but they never affected gas flows to European markets. When it comes to the current energy relationship between Europe and Russia, the

25) Elsewhere, CIEP has developed some views about new toolbox approaches. See, for instance, Coby van de Linde, Turning a Weakness into a Strength: A Smart External Energy Policy for Europe (The Hague: CIEP of Clingendael Institute, 2008).

NATO dimension should be considered as well. The new EU and NATO member states in Eastern Europe tend to rely less on the European Union's soft powers and more often than not they side with the United States on security issues in the region. This has led to diverging foreign policy approaches and to different assessments of future energy relations with Russia among the member states of the European Union.[26] Additionally, Belarus and the Ukraine, left in the middle between an enlarged Europe and an assertive Russian Federation, remain crucially important to both the European Union and Russia for the security of oil and gas in transit. In the same context, the Caucasus region is becoming increasingly important for energy as well, given the ability and likelihood of developing new energy corridors beyond the borders of Russia and Iran, the world's two largest gas reserves' holders.

East–West energy flows and West–East energy capital flows may have been rather straightforward in the past, when there were only two legal and institutional arrangements to deal with (that is, the Council for Mutual Economic Assistance –Comecon – and the European Union), but the complexities of the gas (and oil) value chains have increased with growth of the number of institutional set-ups. This has also raised the prominence of the issue of transits in gas and oil. The European Union tried to manage this on the basis of its own internal market paradigms by developing new institutions and arrangements. The Energy Charter Treaty (ECT) was the first such arrangement in the mid-1990s, followed by the EU accessions in the early 2000s, which widened and broadened the EU energy market and the energy *acquis*. Under the Energy Charter Treaty a separate transit protocol was developed, with rules for third-party access and tariffs. The role of energy was further enhanced by development of the Energy Community Treaty, where the European Union and all South-Eastern European countries agreed to establish a common energy market on the basis of the EU model.[27] These measures can be seen as attempts to fill the void in regulatory control over export pipelines. They have obviously stimulated Russia to promote its own approach at controlling supplies and export routes, and to secure market access through the imposition of a transportation and export monopoly for gas, in order to manage the risks and benefits of the gas value chain.

One could argue about missed opportunities for the European Union, when, as the EU-15, it might have been able to negotiate a new strategic energy partnership with Russia ahead of EU enlargement in 2004. It could have helped the Russians to restructure CIS energy relations, when discussions in the framework of the Energy Charter ran aground. Clearly, the influence of the United States in the new Eastern European EU member states and the impact of this on foreign policy-making in the European Union as well as on the EU's relations with Russia should not be underestimated.

26) Yuliya Tymoshenko, 'Containing Russia', in Foreign Affairs, May/June 2007, p. 75.

27) See the ECT website: http://www.energy-community.org/portal/page/portal/ENC_HOME.

Only a few years ago, Russia was still eager both to conclude new and to renew old long-term supply agreements in order to solidify its position in the EU market. Its strategy has now changed, and Russia seeks new types of agreements, which not only allow it to reach the EU market through diversified routes, but also to gain direct entry to the EU market as a distributor.

On the other hand, there is growing distrust in the European Union about Russia's unwillingness to open up its huge reserves for foreign direct investments and the way in which the Russian government resolved its problems with the oligarchs and their companies. When foreign ownership of reserves and production seemed near, the Russian government closed the door on the sale of foreign majority holdings in Russian energy companies and ruled that foreign owners could only hold minority shares. The restructuring of Gazprom and the enlargement of Russian government ownership to a 50 per cent +1 share does, however, hold the promise of upstream investments in gas, much as investments in Qatar and other producing countries allow. Yet, participation in Russia's near gas monopoly and its new gas projects did not measure up to the EU's expectation that the Russian government could be persuaded to break up the monopoly.

Still, it cannot be denied that the Russian gas sector is becoming more market-oriented, internationally as well as in the domestic market. In March 2008, the Duma agreed that independent gas producers, which cover some 16 per cent of total gas production (a share that will increase further in the coming years) and which are only allowed to sell on the domestic market, would also share in the benefits from gas exports. [28] Increasing domestic gas prices and allocating their share of export income should help to optimize gas production and stimulate new investments. These and other investments are necessary to make the next step in developing a new generation of gas fields in faraway places like Yamal, Eastern Siberia and Shtokman. The success of the investment strategy and the development of domestic gas demand will be decisive in determining how much gas will, and can, find its way to the EU market. Developments in the Russian market, such as net back pricing by 2011, will also impact upon the volumes of Central Asian gas flowing to Russia and the European Union. Russia is trying to become an aggregator for Central Asian gas, offering both a spot market and longer-term market outlets through Russia.

It should also be noted that the Russian power sector follows a different path. Here we see an unbundling of transmission and generation and a breaking up of generator monopolies, with new opportunities for capital inflows from EU energy giants. From a strategic point of view, these partnerships cannot bypass the gas component, as these giants are active in

28) As expected, the proposal is facing fierce resistance from Gazprom and it seems that it is to be put in the wider context of the Kremlin power struggles.

gas too, just as Gazprom is investing in Russian power. Gazprom's collaboration with other gas producers, such as the Algerian company Sonatrach, is equally interesting, and so is the so-called Nordic dimension. Although Norway has legally committed itself to the European Union's energy *acquis* (without having a place at the table, but seeking full membership of the Energy Community Treaty), it is – with peaking oil production and northward-bound gas production to more inhospitable regions – reorienting itself as a major energy supplier to the European Union. The new merged StatoilHydro energy giant, wherein the Norwegian state has a 70 per cent stake, is another indication that Norway wants to maximize its energy wealth. This long-term strategy, stretching over many years, may run counter, however, to the immediate energy and diversification needs of the European Union. This is the more so as StatoilHydro is partnering Gazprom in the development of the huge northern Shtokman gas field, allowing for further cooperation between the two capitals on the new oil and gas frontiers in the Arctic.

The volumes of 'Russian' gas entering the EU market will, globally speaking, largely determine the development of the wider global gas markets, including LNG. The crucial position of Russia for balancing world gas markets is confirmed by the IEA: 'Russia is also important to the world because future trends in Russian gas exports to Europe are a key factor in determining the degree of tightness in global gas markets and pressures on alternative sources'.[29] The challenge for the European Union is then to create a market and regulatory system that attracts gas into the market. One decade ago, the buyers' market implied allowing suppliers of gas to compete for the buyers in the EU market, while the sellers' market of today implies buyers competing for gas with other buyers. This competition for flows is not localized in the EU market among the various consumer groups, but more and more at the international market level with other economies. Russia's gas strategy has evolved in the past decade from a regional to a global market strategy, to which national rather than regional economic interests are central. Russia has distinctly moved away from a position of captive supplier to the European Union, and the European Union, for its part, is seriously trying not to become a captive consumer of Russian gas. Supplies from the traditional suppliers – Algeria, Norway and Russia – will continue to play a crucial role in the EU gas market. The fact that all three have reinforced their governments' interest in their national oil and gas company illustrates the importance of the oil and gas sectors for the national economy.

Producer governments are reserving a role for themselves in managing the (long-term) risks and benefits. The European Union and its importing consumer governments will have to find a new approach in developing a long-term energy relationship with Russia. Existing institutional arrangements such

29) IEA, Natural Gas Market Review 2007 (Vienna: IEA, 2008), p. 129.

as the Charter Treaty, irrespective of their general importance, may not be the appropriate basis for doing so. The G8 2006 Summit in St Petersburg's 'Statement on Global Energy Security Principles' may indicate a more fruitful approach:

> Free, competitive and open markets are essential to the efficient functioning of the global energy system. Efforts to advance transparency; to deepen and spread the rule of law; to establish and strengthen predictable, efficient fiscal and regulatory regimes; and to encourage sound energy supply and demand policies all play significant roles in maintaining global energy security. By reducing uncertainty these efforts improve understanding of energy market developments, and therefore sound investment decisions and competitiveness.[30]

Similar novel suggestions have been made in the recent Mandil Report on energy security to the French presidency,[31] in which former IEA Executive Director Claude Mandil proposes to concentrate on concrete projects rather than on politically inspired rhetoric. It would be more beneficial, he writes, to work on enhancing energy efficiency in Russia, limiting gas-flaring and developing CCS projects, than to keep on demanding Energy Charter ratification. It will be interesting to see how the European Union's leadership will manage the process of negotiating the energy components in the wider EU–Russia partnership agreement.

30) See online at http://en.g8russia.ru/docs/11.html.

31) Claude Mandil, Sécurité énergétique et union Européenne: Propositions pour la présidence française, report to the French Prime Minister (Paris: French Prime Minister's Office, April 2008).