

Jacques de Jong & Coby van der Linde¹

EU Energy Policy in a Supply-constrained World

Summary

Energy is quickly becoming an issue of integration and disintegration of the EU and will perhaps turn out to be the ultimate litmus test of political and economic unity in the EU, as energy issues are increasingly intertwined with wider security issues on the continent. Very often, economic issues are elevated to the political–strategic level, serving a different agenda than merely contributing to the energy policy agenda of the EU.

The challenges to the EU and its member states in the energy sector are many: some issues are part of the wider geopolitical and geo-economic agenda, but some are also the product of the new EU that emerged after the fall of the Berlin Wall. The enlargement with member states that are asymmetrically dependent on oil and gas supplies mainly from Russia has further emphasised the growth of structural energy import dependency. Moreover, the new member states did not have the benefit of introducing the energy ‘acquis’, i.e. liberalisation, in a period of ample supply and relatively low prices.

From 2004 onwards, energy has become tighter and more politicised. It was these developments that also uncovered the calculated risk of the old member states to embark on liberalisation without putting a crisis management policy into place. With the increasing worries about the security of supply and the asymmetric exposure of Eastern Europe to a single supplier, energy security issues also began to dominate the internal policy debates both in energy and in external relations.

The new developments require the EU member states to consider how and to what extent their external energy policies should also be merged into a more EU-wide approach, if they can agree on the common risks that need to be averted and the common benefits gained, and if and how a crisis mechanism for fuels other than oil is needed to manage the perceived increased security of supply risks. Moreover, they should also consider the internal market design they set out to implement and evaluate its robustness against the background of the different energy landscapes in the world. Striking a balance between the priorities of energy policy is, however, difficult in an EU where a wide diversity of energy mixes and import dependencies prevails, and where foreign policy and security approaches are even more diverse.

The current weaknesses of the EU energy policy, which is in essence comprised of an internal market and competition policy, a nascent sustainable energy policy and an absent security of supply policy will either be addressed under the mounting pressures of the outside world or will derail any hopes of a common energy policy. The main challenges to this common policy are thus political, both internally and externally.

¹ Clingendael International Energy Programme, CIEP, The Hague, The Netherlands.

1. Introduction

The recent price increases of oil, gas and coal are indications of the fundamental changes taking place in world energy markets. Demand for fossil fuels in recent years has been growing faster than supply, creating tightness all along the fossil fuel value chain. The growth in demand is predominantly driven by economic and population growth in economies such as China, India, the Middle East and some other high-growth economies, pushing the energy system to its current production possibility limits. New production can be made available at higher investment costs or when producing countries can manage production above their national equilibrium level (value of oil in the ground, domestic absorption capacity, performance of Sovereign Wealth Funds) or when new fuels can be brought to the market to supplement the supply (such as biofuels for transportation, and wind, solar and nuclear to underpin a switch to plug-in cars) in certain markets.

The contribution to fossil fuel demand growth from the traditional demand centres in the OECD countries is much more modest, while the demand switching to more sustainable fuel is still infinitesimal. In the years to come, this contribution to fossil fuel demand growth will be even more modest from this group when stricter climate change policies, including energy efficiencies, and security of supply policies are implemented. Supply, however, has for a variety of reasons difficulty in keeping up with the new demand levels. Most of these impediments to supply growth are 'above the ground' problems, rather than geological problems. Although it is generally accepted that the cost of fossil fuel production is increasing due to smaller, more complex and deeper deposit finds, even in areas that were previously known for their 'cheap oil', the cost of energy is also increasing because of increasing investment, political and regulatory risks. The long lead times and the national nature of many fossil fuel upstream investment decisions, while demand is global, also create strains on the demand and supply balance. This is further aggravated by the fact that domestic supply in the main consuming regions/countries is declining and demand for imported fossil energy is rising.

Against the backdrop of tight fossil fuel markets and the slow progress in switching to other more sustainable fuels, the increasing import dependency is translated into greater concerns about security of supply on the part of the consuming countries. The fact that producer countries have taken firmer control over the development of the resource base, countries such as Kazakhstan, Russia

and Brazil in addition to OPEC countries, and the fact that international energy companies from consuming countries have greater difficulty in accessing new reserves, have fuelled the debate about energy nationalism among the most important energy market players.

As a result, in recent years, the market has been replaced as the sole policy tool to achieve security of supply by a more interventionist approach, where political relations also play a role in external energy policy. As part of these renewed politicised energy relations, the ownership structure of reserves and production capacity are becoming more relevant, not only because national oil companies have different investment drivers, but also because they very quickly elevate discussions about energy supply and demand security to the political level, while the underlying economic issues or incentives are often ignored. This is true in both the oil market² and the European gas relations with Russia,³ where discussions about deliveries, investments and routing are more about political sensitivities than about the changing economics as a result of the new institutional and economic make-up of the Eurasian continent. For example, the economics of the energy system have changed as a result of the Eastern European EU member countries' integration into the internal market, while they used to be part of the Comecon economic system. Also, the break-up of the Soviet Union into the Commonwealth of Independent States (CIS) has changed the economics of the energy system. The transportation routes from Russian and Central Asian oil and gas fields to end-consumers on the Eurasian continent are now subject to completely different regulatory regimes and economic systems. Energy trading routes have gained or lost their economic logic with the changing markets they served in Western and Eastern Europe, while China as an important market for Central Asian oil did not even exist before 2000. The EU, for a very long time, considered itself as the only viable export market for Russian energy exports, and in its energy relation with Russia acted accordingly. In the meantime, new options for Russia, including the domestic one, are emerging, forcing the EU member states to rethink their external energy policy position.

This paper will investigate the changing context of EU energy policy. In the 1990s, the EU focus was mainly on issues concerning 'internal energy policy'. The efforts to establish an internal energy market were designed to breach the barriers of one of the last remaining nation-

² Jan-Hein Jesse and Coby van der Linde, *Oil Turbulence in the Next Decade, An Essay on High Oil Prices in a Supply-constrained World*, CIEP 2008/03, June 2008, www.clingendael.nl/ciep/publications.

³ CIEP, *The Gas Supply Outlook of the EU, The Roles of Pipeline Gas and LNG in the EU Gas Market*, 3 September 2008, www.clingendael.nl/ciep/publications; and Coby van der Linde, The geopolitics of EU security of gas supply, in: *European Review of Energy Markets*, volume 2: issue 2, December 2007, pp. 209–232.

ally organised markets. At the same time, the EU was engaged in a process of enlargement, which dramatically changed the energy relations on the Eurasian continent. However, the efforts to liaise the energy-producing CIS countries, notably Russia, with the new market design (through f.i. the European Energy Charter) failed. This failure prevented the internal market strategy from developing into both an internal and an external energy strategy. Instead, the fundamentally different national interests of producer and consumer countries in capturing the economic rents in their part of the value chain and the inability to include both interests in a fitting market design became more and more a factor of conflicting interests. When the conditions on the international oil and gas market changed from competition for consumers (a buyers' market where supply is ample and prices are thus low) to competition for supplies (a sellers' market where demand is outpacing supply and prices are thus high), the focus on the internal market no longer sufficed. The emergence of tighter energy markets and the Eastern EU enlargement in 2004 more or less coincided and, when the internal market appeared to fall short of providing the member states with security of supply, they quickly dusted off their national security of energy supply policies. Very soon, the very wide divisions between the member states in the larger EU became apparent because of the foreign policy and strategic security dimensions of security of energy supply. The Georgia crisis is a case in point. Energy has become an issue of integration and disintegration of the EU and perhaps will turn out to be the ultimate litmus test of political and economic unity in the EU.

In section 2, we will investigate the changing international economic and geopolitical energy landscape to understand the new context of EU energy policy-making. In section 3, the 1990s provide the special circumstances under which both the internal market and enlargement have shaped relations on the Eurasian continent. Section 4 deals with the impact of a sellers' market and the return of government in energy matters, while in the last section, 5, the new challenges to EU energy policy-making are sketched out.

2. Changing international energy landscape

In oil, the incentives to invest in capacity enlargement are changing. Many oil-producing countries pursue a mainly oil income driven policy, which, with today's price

levels, comes out of price rather than volume.⁴ The needs of the national economy and the ability to diversify and to create domestic jobs requires a balance between their oil income and the investment needs in the oil and non-oil parts of the economy. This national balance does not necessarily agree with the production level that the international oil market requires, which results in the current international pressures to invest and produce. Moreover, the oil-producing countries want to balance the value of oil in the ground against the performance of their Sovereign Wealth Funds (SWF). In the 1970s and 1980s, after the oil dollars were recycled through the international capital markets, the rate of return on their excess savings was poor, while the management of excess production capacity, which created a nice buffer for the operation and stability in the international oil market, was costly. Yet, the new strategy of concentrating excess savings in SWFs is also fraught with difficulties because it has involved taking (minority) ownership of equity in other economies. Because of the government involvement in SWFs and the opaque governance of some funds, political discussions have erupted about SWF investments in the OECD banking and other sectors, fearing politically inspired takeover bids and a shift in economic power. In addition, oil-producing countries have a renewed interest in downstream investments in order to secure markets for their oil, but there is also uncertainty here about a political backlash. The examples of the US Congress getting in the way of the Chinese wishing to take over Unocal and the EU's 'Gazprom' clause bode ill for such a strategy. The uncertainty on the part of the oil-producing countries about the development of demand creates a further reluctance to commit to further capacity expansions. In addition to a lingering fear of returning to the over-supplied and low price markets of the 1990s, the impact on future oil demand of the demand switching policies of the OECD's environmental policies is unknown after 2020.

It is clear from the oil and gas examples that the development of international energy markets is more uncertain than in previous periods. Other factors, such as the access to resources and markets for (international) companies, the ongoing environmental negotiations, the strategic nature of energy, cost inflation, end-user subsidies and regulatory uncertainties play a role too. The result is currently very volatile energy prices, impacting on both (producer and consumer) government budgets and balance of payments, creating large shifts in wealth among countries. These un-

⁴ *Financial Times*, 11 August 2008, p. 3.

certainties are not limited to energy but also play a role in the international finance and trade sectors. The difficulty with which progress is made in the Doha trade round and the fact that new IMF member states do not follow the rules and practices of the organisation with regard to the exchange rate policies are examples which show that the multilateral political and economic arrangements are in flux.

It is in this environment that the EU is now forced to re-evaluate the energy policy course that it only set out in the mid-1990s. This course was started on the premise that international energy markets, like the rest of the economy, would further globalise or that international relations would economise rather than become more national and politicised. National interests seem to override global interests, partly because priorities differ among countries. This is clear, not only in the multilateral trade and investment discussions, but also in the environmental discussions. In a situation where economics prevail, also in international energy trade and investments, the strategy to focus on liberalising the EU energy market first made sense. However, in rapidly more politicised energy markets, government involvement becomes more likely when companies are not easily able to contribute to the priorities of energy policy, relatively low prices, security of supply and the environment, because other governments' policy priorities prevent that. Energy policy is also about the competitiveness of the economy compared with others and as a basic input crucial for economic growth.

The new developments require the EU member states to consider how and to what extent their external energy policies should also be merged into a more EU-wide approach, if they can agree on the common risks that need to be averted and the common benefits gained, and if and how a crisis mechanism for other fuels than oil is needed to manage the perceived increased security of supply risks. Moreover, they should also consider the internal market design they set out to implement and evaluate its robustness against the background of the different energy landscapes in the world. These considerations also have to incorporate the environmental policies the member states wish to pursue against the background of their diverse energy mixes and import dependencies. Striking a balance between the priorities of energy policy is, however, difficult in an EU where a wide diversity of energy mixes and import dependencies prevails, and where foreign policy approaches are even more diverse.

3. Window of opportunity: EU energy policy in the 1990s

In the 1990s, prior to the 2004 and 2007 enlargement with the Eastern European countries, the EU set out a course of liberalising its gas and electricity markets, which was part of the Maastricht Treaty agenda to establish an Economic and Monetary Union prior to the enlargement. The deepening of integration was intended to increase the efficiencies in sectors that had remained largely nationally organised. In many member states, the energy sector was partly or wholly publicly owned, often involving lower governments such as cities or provinces. Economies of scale and scope were lost in the local orientation of the gas and electricity industry. In oil, mainly internationally operating companies were active, although in this sector (central) government ownership was also prevailing in certain member states and in certain parts of this sector. External energy policy was a matter for the central government in all member states. In oil matters, most EU member states were members of the International Energy Agency's International Energy Programme, which implied participation in the strategic reserve and demand management policies in an emergency situation. The intergovernmental nature of the IEA and the participation of non-European OECD countries was an added value of this cooperation compared with the recurrently proposed EU-based oil emergency policies of the 1970s and 1980s.

Attempts in the 1960s, 1970s and 1980s to construct a common energy policy failed because the energy mixes of the member states were too diverse to take every member state's interest to heart.⁵ France had opted for the nuclear route in the 1970s, while others had entrenched domestic coal (Germany, UK) or gas industry interests (Netherlands, UK). In some member states, public acceptance of nuclear energy was very low and the active promotion of nuclear energy by the European Commission after 1973 certainly did not convince the member states to embrace a common energy policy. In many ways, the national energy sectors reflected the post-war member state governments' view of economic management. Only in the late 1980s, with the single market (1992) programme, did the member states begin to favour more market-oriented approaches, often as a result of their weak public finance position after the recession of the late 1970s and early 1980s and a new belief in the Anglo-American supply side or

⁵ Coby van der Linde, External energy policy; old fears and new dilemmas in a larger Union, in: *Fragmented Power; Europe and the Global Economy*; Bruegel, Brussels, 2007.

market remedies. Given the failed earlier attempts to arrive at a common energy policy, it is not surprising that the new effort of the Commission in the energy sphere in the 1990s aimed at the internal market only and did not include external energy policy or environmental policy, the two other priorities of (national) energy policy-making.

Also, the market approach had a perfect ideological fit with the idea of the Lisbon Agenda to become the most competitive economy of the world, but also with the integration project as such: the EU had always been an economic project and to a lesser extent a political or state-building project. The Lisbon Agenda and liberalisation of the internal energy market were this ideological fit in the expectation that the rest of the world would follow suit. The economisation of international relations through trade and investment, also in the rest of the world, would allow the EU to continue its integration process without having to decide on political integration and creating state functions for the EU institutions, which for many member states would have been a step too far.

Unlike in its earlier attempts, this time the Commission could launch its energy liberalisation programme under more encouraging international market circumstances. International energy prices were relatively low between 1992 and 1999 and, with the promise that liberalisation would free up many efficiencies for consumers, member states began first to reorganise their national sectors to prepare them for pan-European competition and consumer choice. Both the European oil and gas markets were amply supplied, in part because domestic demand in the former Soviet Union collapsed faster than supply in the early 1990s, which enlarged the amount of oil and gas available for exports to hard currency markets such as the EU one. Production in the North Sea reached its plateau, only coming off the plateau in the late 1990s and for gas in the early 2000s. Although it was already then clear that the import dependency would increase substantially in the decades to come,⁶ there was a certain optimism after the break-up of the Soviet Union that the energy resources of both Russia and Central Asia would partly fill the gap and that supplies would remain diversified enough.⁷ In the 1990s, EU oil imports from Russia began to increase and replaced much of the oil imports from the Persian Gulf, which was at the time considered a sound diversification of supply policy. At the same time, Asian oil-importing countries, China in particular, began to increase their supply from the Middle East region, when they began to import oil to satisfy its growing oil demand.

4. Comeback of government in the energy sector

The new oil and gas trade patterns that evolved in this period, within the gas market the prospect of LNG to provide additional diversified supplies and the promise of the gas market developing from a regional to an international market, were seen as supportive of the view that international markets would become a dominant and efficient way to connect demand and supply in the world.⁸ With that expectation came the underlying assumption that private companies would be the main players in the international energy arena. This idea was mainly based on the expectation that the resources of the former Soviet Union would become available for foreign direct investments of private international oil companies and that they would thus be able to create a counterweight to the impending market power of national oil companies of the OPEC and some other countries, where International Oil Companies (IOCs) could not access new reserves. In gas, the EU felt very comfortable in the knowledge that it was within economic reach of many gas-producing countries in the former Soviet Union, the Middle East and Africa, while in oil, the EU was counting on the growing liquidity of the international oil market and the purchasing power of the EU to guarantee sufficient access to imported supplies. What was not included in the assumptions of the EU was the switch of the oil and gas markets from a buyers' to a sellers' market. This switch came about as a result of the slow growth of production capacity (due to low investment levels in the period of low prices in the 1990s) and the accelerated demand from emerging economies, in particular China and India, for imported oil and gas after 2003.

The impact of the switch to a sellers' market was large:

FIRST, in energy, governments have always played an important role throughout the value chain, for instance in terms of granting exploration and production licences, granting permission for transit infrastructure and in market organisation. Also, as a tax collector and/or owner, governments have always played an important role. The EU, which is not a state, could never fully play this role, which was another impetus for focussing on an area where it did have powers, i.e., the internal market and competition policy. However, in a situation where the developments in the international energy sector, after 2000, do not go in the direction of 'government light' but rather again lean towards 'government heavy', the EU is badly positioned to design an effective energy market policy which requires active state involvement. It is exactly

⁶ Commission Green Paper of 29 November 2000, Towards a European Strategy for the Security of Supply, (COM(2000) 769).

⁷ Jonathan Stern, *The New Security Environment for European Gas: Worsening Geopolitics and Increasing Global Competition for LNG*, 2006, OIES, pp. 4–5, NG15 at <http://www.oxfordenergy.org/pdfs/NG15.pdf>

⁸ Coby van der Linde, External energy policy; old fears and new dilemmas in a larger Union, in: *Fragmented Power; Europe and the Global Economy*; Andre Sapir (ed.), Bruegel, Brussels, 2007.

for this reason that member states became more and more involved again in energy matters, when the international oil and gas markets politicised and the security of supply and the environment, the two public interest parts of energy policy, gained prominence. Although the new Lisbon Treaty would make energy policy a shared responsibility of the EU and member states, shared responsibility does not easily transform into a shared interest or view among the 27 member states, and it is therefore doubtful that it could translate into immediately effective policy-making bridging the many differences.

SECOND, rather than concentrate on competition in the retail and wholesale markets of the EU, the new market conditions after 2000 moved competition elsewhere in the value chain; from competition for EU consumers to international competition for supplies. In the case of the EU, this thwarted the efforts to increase competition in the internal market because competition and price formation in gas now mostly take place outside the realm of the EU policy-makers. In gas, this was particularly painful because the dependence on supplies from the three traditional external suppliers, Russia, Algeria and Norway, will remain very large in any projection of EU supplies.⁹

THIRD, the fact that the EU pursued a market design that treats gas and electricity in a similar fashion is another complication. Approaching both from a network point of view had perhaps certain merits when the EU was smaller (prior to 2004), was producing more and subsequently limited the imports of gas and when the first aim was to improve gas flows between member states. It did, however, ignore the fact that gas increasingly needs to be imported and that the upstream part of the gas sector is not within the regulatory jurisdiction of the EU (despite enlargement).¹⁰ The power and gas markets certainly share certain features, but they are also sufficiently different across the value chain to have qualified for a more distinct approach to both. Electricity can be generated by various fuels (coal, nuclear, gas, wind, solar, etc.) and the production of power is located closer to the market. Also, gas can be stored and increasingly transported by sea (after liquefaction). Importantly, the electricity market is local or regional, while gas is increasingly transforming from a regional (pipeline) market to an international gas (LNG) market. The fact that the market design was not remedied shows that the market design of the EU has not been adapted to the new realities in international energy markets. The model would have worked in a buyers' market (where producers must compete for markets/consumers),

but is flawed as a model in a sellers' market (where consumers must compete for supplies). Since in energy these market conditions tend to persist for a fairly long time, adapting the model when the market conditions changed or making the upfront market design more robust would have been desirable. Instead, the EU, in its relations with gas suppliers, has been pressing very hard to make them accept the regulatory market models of the EU, ignoring the legitimate interests of the producing countries to design their own market in accordance with their own needs and interests.

FOURTH, an additional complication for the EU was that the expected liberalisation of the gas sector in Russia never took place and instead Russia re-emphasised its concentrated gas sector. Moreover, Russia refused to accept the Transit Protocol of the Energy Charter, which would have been a tool to limit Russia's monopoly in the transportation and export of gas through the existing gas corridors and would have allowed Central Asian and independents' gas to be exported without Gazprom's intervention. Rather, it seemed that the more pressure the EU exerted on Russia to open up and allow diversified gas flows to go through its system, the more concentrated the power over Russian gas became.¹¹ The EU was debating Russian gas supplies at all sorts of levels: it discussed the merits of traditional take-or-pay long-term contracts; it abolished destination clauses; and was for a long time unclear about the regulatory regime on long-distance trunk lines to the EU. Also, the EU was not actively involved in the transit risk in the Ukraine before 2006, and left the management of the Ukraine solely to Russia. Only after the Orange Revolution did the EU (and NATO) become involved, but not in a manner to reduce jointly the transit risk between them. For the Russians, it exemplified the idea that the EU felt in charge of the organisation of the gas value chain, and that Russia was supposed to follow the EU's lead. The Russians response was that they feared an uneven distribution of risks and benefits, and that the investment and transit risk had to be carried only by Russia.

As a result, the Russian independent suppliers were not given access to the EU market and instead Gazprom was given an explicit gas export monopoly. Also, the Russian government increased its share in the company to just over 50 %, bringing the company closer to the new energy policy of the Putin II government. Energy was designed to become the foundation of the Russian economic recovery and the development of its energy sector had first and foremost to serve the Russian economic development

⁹ CIEP, *The Gas Supply Outlook of the EU, The Roles of Pipeline Gas and LNG in the EU Gas Market*, 3 September 2008.

¹⁰ Jacques de Jong, *The Third EU Energy Market Package: Are We Singing the Right Song?*, (EN) CIEP Briefing Paper 8, The Hague, CIEP, February 2008; Coby van der Linde, Aad Correljé, Jacques de Jong and Christoph Tönjes, *Paradigm Change in International Natural Gas Markets and the Impact on Regulation*, (EN) CIEP, The Hague, International Gas Union (IGU)/CIEP, April 2006.

¹¹ Catherine Locatelli, *EU gas liberalization as a driver of Gazprom's strategies?*, *Russie.Nei.Visions*, no. 26, p. 13, 2008; Dominique Finon, *Russia and the 'Gas-OPEC': real or perceived threat?*, *Russie.Nei.Visions*, no. 24, November 2007. Both at <http://www.ifi.org/files/Russiel>.

goals.¹² This impacted on the merit order for investments in the new generation gas fields and the market strategy of Gazprom. The Russian energy strategy is a departure from the model of energy development that the EU had in mind, where free flows of trade and investment, i.e. international demand and supply, determine the exploitation of energy resources rather than government income needs, the pace of domestic economic development and the strategic position of Russia in the world of gas.

In addition, the growing divergence of views on the strategic relationship between Russia and the EU,¹³ the growing tension over the security space on the Eurasian continent, including discussions on NATO's mission, role and membership,¹⁴ and the American foreign policy agenda for the region has, in addition to energy discussions, also sharpened the foreign policy discussions among the member states and between the EU and Russia. Energy discussions in the EU are focussed primarily on the real or perceived threats to its energy security by Russia, without giving much credence to the dependency of Russia on the European market. The hardened tone from Brussels after the Ukraine–Russia gas crisis and the resistance of mostly Eastern European countries to the new transit routes further politicised the energy relation.

FIFTH, investments in new oil production capacity, despite growing demand in the 1990s, were delayed, and although the buffer capacity was not as large as in the 1980s, it was deemed sufficiently large for companies and producing countries not to be incentivised to increase them. In 1999, OPEC managed to agree to reduce production and support the oil price at a higher level. From 2003 onwards, with demand in Asia growing buoyantly, prices began to increase again and in the space of two years the buffer capacity of Saudi Arabia and the United Arab Emirates was needed to satisfy the growing demand. With the buffer capacity at a very low level, the international oil market began to experience greater volatility in the knowledge that each barrel lost in maintenance, regional conflicts, acts of nature or otherwise could no longer be compensated for by calling on the buffer capacity. The war in Iraq and the persistent large security risks took away the hope of a quick restoration of Iraqi production to pre-war levels. Also, the hope of substantially increasing production capacity by tapping more intensely into the Iraqi production potential by international oil companies was pushed further and further into the future. At the same time, tension about the Iranian nuclear ambitions increased, adding to the industry's political risk

profile and subduing the hope of increasing investments in the Iranian offshore oil and gas industry.

SIXTH, the growing nervousness about oil supply falling short of demand and the political uncertainty about the Middle East Gulf provoked competing diversification policies among oil-consuming countries. Obviously, some countries relied on their ability to purchase oil (and gas) in the international markets, even at much higher prices. Japan is a good example of this purchasing power policy.¹⁵ The EU also relied predominantly on its market strategy, and the international oil companies supplying their market. Of course, the EU is home to some of these large private oil companies with equity oil and gas assets abroad. China and India followed a different strategy. Since China had become an oil importer in 1995 and became interested in the organisation of the international oil market, it realised that the choice either to buy from a producing country National Oil Company (NOC) or from an IOC would leave the Chinese energy interests exposed in the case of a disruption because it could not rely on an international company with China as its home country. The Chinese government actively began to support Chinese NOCs to explore for oil outside China and built up a position in the international oil market as an important player. Very quickly, Chinese (and Indian) companies with the help of their governments were competing for the limited reserves to which foreign companies had access in Latin America and Africa.

The increased strategic tension in the Gulf, where most of the world's proven (relatively low- and medium-cost) oil reserves are located, greatly impacted on the security of supply policies of oil import-dependent countries around the world. From 2004 onwards, Asian countries, in particular China and India, began to seek diversification of their oil supplies in Central Asia and Africa and began to engage in direct competition with (American and European) international oil companies for equity oil in these regions.

SEVENTH, the internal energy market is very difficult to combine with the climate change and security of supply policies of the EU and member states. In the documents supporting the new policy initiatives, integration of the three priorities of energy policies is at least mentioned, but a closer reading reveals that it is still mainly window dressing. The EU does not have the competencies in all three energy policy areas to support such a claim. That is why the 20-20-20 policy,¹⁶ although a good attempt at an EU-wide energy vision for the future, will lead to very diverse implementation outcomes. The member

¹² Locatelli, *ibid.*, p. 17; Coby van der Linde, The geopolitics of EU security of gas supply, in: *European Review of Energy Markets*, volume 2: issue 2, December 2007, pp. 209–232.

¹³ Dimitri Trenin, *Towards a New Euro-Atlantic Hard Security Agenda, Prospects for Trilateral US-EU-Russia Cooperation*, 3 August 2008, p. 8, at http://www.ifri.org/files/Russie/Trenin_TowardNewEuroAtlantic.pdf.

¹⁴ Witness the conflict in the Caucasus, *Financial Times*, 13 August 2008.

¹⁵ Jan-Hein Christoffels, *Getting to Grips Again with Dependency: Japan's Energy Strategy*, The Hague, CIEP, 01/2007, August 2007.

¹⁶ See the Green Package website: http://ec.europa.eu/energy/climate_actions/index_en.htm.

states will all take their own existing energy system as a point of departure and, based on their sovereignty over the fuel mix,¹⁷ will seek solutions that serve the national interest first.

LAST, the liberalisation of the energy sector implied a choice in favour of efficiency and short-term logic of the market over the longer-term public interests. However, liberalisation did not bring the freedom for investors to choose their own fuel mix; very often, the fuel mix remains in the political domain of the member states. Although member states are in favour of a diversified fuel mix, in terms of fuel and origin, local reticence regarding nuclear energy, coal as the largest emitter of CO₂ of the fossil fuels and Russian gas greatly limits the choice of investors. Rather, the efficiency of the market is more often than not sacrificed for political expediency. With limited choice, growing demand and the uncertainties regarding coal, gas and nuclear, investors have been reluctant to invest. Ultimately, it was the support of the member state governments with regard to Russian gas or a commitment to CO₂ storage policies that has unlocked some of the shelved investment plans.

In conclusion, the challenges to the EU and its member states in the energy sector are many; some issues are part of the wider geopolitical and geo-economic agenda, but some are also the product of the new EU that emerged after the fall of the Berlin Wall. The enlargement with member states that are asymmetrically dependent on oil and gas supplies mainly from Russia has further emphasised the growth of structural energy import dependency. Moreover, the new member states did not have the benefit of introducing the energy 'acquis', i.e. liberalisation, in a period of ample supply and relatively low prices. From 2004 onwards, energy has become tighter and more politicised. It was that development that also uncovered the calculated risk of the old member states to embark on liberalisation without putting a crisis management policy into place. With the increasing worries about the security of supply and the asymmetric exposure of Eastern Europe to a single supplier, energy security issues also began to dominate the internal policy debates both in energy and external relations.¹⁸ With regard both to electricity and to gas, there is no crisis management policy at the EU level, and sometimes it is also lacking at the member states' level. In oil, such a policy exists for the member states of the International Energy Agency. The lack of such a policy makes member states reluctant to rely fully on the EU policy-making and instead they also invest in bilateral energy

relations with producing countries and favour national energy companies over the companies of other member states. For any external energy policy to become successful, putting the crisis management house in order is a precondition for both the development of the internal market and kick-starting external energy policy-making.

Other challenges to the EU energy policy agenda can be related to the split between the EU and its member states. The EU and its institutions are solidly set on the liberalisation track, without taking on board the wider strategic issues involved (or being able to), while many member states are engaged in a diverging strategic energy agenda, depending on their own dependencies, foreign policy and security leanings. This divergence in view and focus is creating a lot of 'noise' in the internal energy market discussions, ranging from a lack of interconnections to unbundling and disputed takeover plans. Part of the difficulty in the EU discussions has been the fact that the gas and electricity sectors have been subject to a similar regulatory regime and market design, while there are distinct differences in the organisation of the value chain and the level at which competition takes place. The fact that competition in gas has moved to the upstream part of the value chain (exploration and production), making consumers compete for supply in the international market, and that the upstream part is not within the realm of EU regulation but part of other sovereign countries' regulatory jurisdiction, have created a crucial difference with the electricity sector that falls completely, from power generation to consumer, within the EU jurisdiction.

5. EU energy policy in a supply-constrained world

It is in this capricious energy environment that the EU should find its way in developing and implementing an effective energy policy at the EU level. The current environment is full of uncertainties about the degree of multilateralism, bilateralism, national and supra-national interests and about the level of government intervention in correcting market outcomes. The New Energy Policy for Europe, as basically agreed in 2007, has interesting elements in it to meet this challenge.¹⁹ Especially, the 20-20-20 policy package for 2020 should be the beginning of a dramatic change in the EU energy system and the composition of the EU energy mix. Despite these new initiatives, the main weaknesses of the EU energy policy, which is in essence limited to an internal market and competition policy and a nascent sustainable energy pol-

¹⁷ Council of the European Union, Presidency Conclusions of the Brussels European Council, 8–9 March 2007, 7224/07.

¹⁸ Coby van der Linde, *Turning a Weakness into a Strength: A Smart External Energy Policy for Europe*, Paris, Note IFRI, 15 April 2008, <http://www.ifri.org/files/Energie/vanderLindeok.pdf>.

¹⁹ See the CIEP study *Europe, the EU and its 2050 Storylines*, http://www.clingendael.nl/publications/2007/20071200_ciep_energy_jong.pdf.

icy, remain intact as long as the security of supply policy is left outside the realm of EU policy-making. This crucial weakness will persist as long as the EU fails to have a coherent strategy regarding its external supply situation, notably vis-à-vis its main supplier, Russia.²⁰

The growth of demand in emerging economies is bound to keep markets tight in the next decade, putting a further strain on the energy system and policy-making cohesion.²¹ The growing import dependence of the EU member states will increasingly require more engagement with other countries, including producing, transit and other net-consuming countries. These relations are currently conducted both at the national and at the EU level. The main area of dispute is the relationship with Russia. Yet, many studies show that the energy flows from Russia are indispensable supplies to the EU market and cannot be replaced by suppliers from elsewhere. In the history of energy relations, it is not unheard of to have bad general relations and yet continue to trade energy, particularly when this energy can be offered on an international market where the energy is de-nationalised. In gas, this is much more difficult, particularly in the pipeline gas trade. Pipelines connect production sites with markets and, in the case of Russia, they bring gas thousands of kilometres to the market, transiting through various countries. Four new member states (the Baltic states and Poland) are most vehemently opposed to intensifying the (energy) relation with Russia, while the other new Eastern European member states seem to be more pragmatic in their EU and Russia relations. Currently, the Baltic states, Poland, the Ukraine and Georgia seem to be building a front, complicating finding a common position on the Eurasian security space. For these countries, the security discussion is more important than the energy discussion. Yet, they use the energy discussion to further their security concerns. The involvement of NATO and the US, with

different views on the future of political and economic relations on the Eurasian continent, make this political discussion extremely complex. The complexity could be a major stumbling block for a common energy policy and instead reaffirm national energy security approaches.

The differences of opinion about the strategic relation with Russia will focus largely on the EU gas market. The EU either attracts ample supplies from Russia and has modest LNG supply requirements or, when Russian supplies, for political or economic reasons, are more modest, it will have to compete fiercely for gas with both the US and Asia.²² So far, the Russian supplies have produced lower gas prices for the EU than the LNG supplies to Asia, which also impacts on the competitiveness of the industry.

Even though a mature energy discussion in Europe should be about the energy mix, the place of fossil fuels, the competition for resources, the increasing import dependency and the speed at which the energy system can innovate towards a more sustainable energy mix, for the EU the biggest stumbling block for any common energy policy to come about is resolving the differences of opinion about Russian energy supplies. In the supply-constrained world that is unfolding now, the options to diversify away the problem are becoming limited. Unlike the US, the EU does not have ample unconventional oil and gas reserves it can tap into and reduce or manage the import dependency. The economic consequences of a faltering relation with Russia will be substantial, but for some countries the strategic-political issues override the economic issues. Moreover, the economic issues of energy relations are elevated to a political level where they cannot be resolved satisfactorily. It is the fundamental security dispute and the way it will or will not be resolved among the member states that will decide the future of a common energy policy. ●

²⁰ Ruud Lubbers, Jan Pronk, Joris Voorhoeve and Tineke Lambooy, *EU moet samenwerken, niet confronteren*, NRC, 5 September 2008.

²¹ Jan-Hein Jesse and Coby van der Linde, *Oil Turbulence in the Next Decade, An Essay on High Oil Prices in a Supply Constrained World*, CIEP Energy Paper, July 2008, http://www.clingendael.nl/publications/2008/20080700_ciep_energy_jesse.pdf.

²² CIEP, *The Gas Supply Outlook of the EU, The Roles of Pipeline Gas and LNG in the EU Gas Market*, August 2008, www.clingendael.nl/ciep/publications from 3 September onwards.