

ENERGY SECURITY OF THE EUROPEAN UNION

Energy security has become an important policy area for the European Union. However, forging and implementing a common energy policy has proven to be difficult. As the national energy mix and energy policies vary widely, the EU member states struggle to agree on common priorities and specific measures. Whereas some progress has been made in the field of sustainability, the realization of a common energy market and of a common external energy policy to secure supplies remains particularly challenging.



Competing European and Russian pipeline projects for a Eurasian gas corridor

Although the issue of energy security first appeared on the European agenda during the oil crisis of 1973/74, the EU has only in recent years made serious efforts towards formulating and implementing a common energy policy. Against the background of growing global energy demand, declining European energy production, concerns about the reliability of Russian energy, increasing energy prices, and the need to address climate change, EU leaders adopted an “Energy Policy for Europe” at their summit in March 2007. It is a three-pillar strategy focusing on the competitiveness, security of supply, and sustainability of energy.

Nonetheless, the obstacles to achieving a common energy security policy remain formidable. Many member states continue to be wary about transferring sovereignty to the EU level because energy is a major domestic policy issue and a prerequisite for national economic growth. Moreover, as the energy mix varies considerably in each individual member state, it is difficult for

them to collectively reach agreement on overall EU priorities. Most of the concrete decisions concerning the three pillars are related to the goal of sustainability. The EU is pursuing the binding twin objectives of reducing greenhouse gas emissions by 20 per cent and increasing the share of renewable energies, such as wind power, solar energy, hydropower, and biomass, from 6 to 20 per cent of the overall EU energy consumption by 2020. Despite these specific targets, however, there is little consensus on to how to meet them or on how to increase energy efficiency.

Reaching agreement on the two other pillars of the EU energy strategy is even more difficult. There is no agreement on either the notion of a common energy market to improve competitiveness or on the specifics of a common external energy policy to secure supplies. Achievements in the area of sustainability may be in line with the public’s support for reducing greenhouse gas emissions. However, this effort cannot

override the need for a comprehensive energy policy or provide member states with an excuse for avoiding difficult choices elsewhere. It is progress in competitiveness and security of supply that will, to a large extent, determine the degree of European energy security overall.

An EU energy market

An efficient European gas and electricity market will not only protect consumers from excessive prices and foster the competitiveness of European industries, but it is also a crucial element of Europe’s energy security. A competitive European market will foster network connectivity and energy interdependence. Moreover, it will provide the kinds of incentives and opportunities that are necessary for network operators and generators to make the huge investments that are required to bolster energy infrastructure, supplies, and technology innovation in Europe.

Even though the process of liberalizing the gas and electricity markets began more than a decade ago, the achievements have remained limited. Markets continue to be fragmented along national borders, and vertically integrated companies dealing with the supply, production, and operation of the gas and electricity networks still dominate the market. In order to advance towards a truly internal market, the European Commission recently launched two major initiatives. The first is to ensure that national energy regulators have greater power and work cooperatively across borders, with the objective of promoting competition and an efficient and secure network system. The second is to unbundle

energy giants, separating the operation of gas and electricity transmission networks from supply and generation activities.

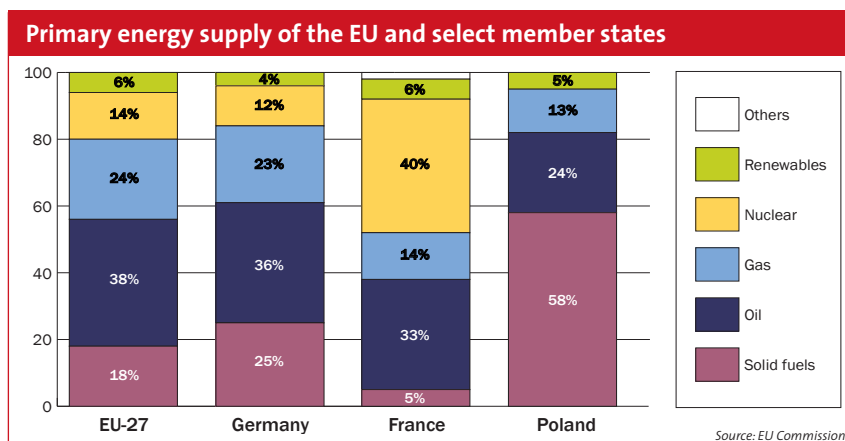
Both proposals remain controversial. Cooperation among energy regulators will either have to remain limited or risk provoking resistance from member states, particularly those with profitable state-owned energy companies. Major national firms are reluctant to dilute market concentration, increase liquidity for new entrants in the gas market, and improve cross-border trade. They argue instead for empowering an independent systems operator with regulatory oversight.

Moreover, EU jurisdiction in domestic markets is restricted to preventing ongoing consolidation of national energy companies. Antitrust investigations of major gas companies were launched in May 2006 in Germany, France, Italy, Hungary, and Belgium. However, as Berlin, Paris, and Madrid oppose the unbundling of energy companies so as not to weaken the power of their national firms, it is well possible that progress towards more competition in Europe's energy market will remain modest for the foreseeable future.

Securing supplies

According to the Commission, the EU imports about 50 per cent of its overall energy needs. Its import dependency is expected to grow through 2030, from 80 to 93 per cent in the case of oil, and from 57 to 84 per cent in the case of gas. Russia accounts for 27 per cent of the EU's total oil consumption and 30 per cent of its oil imports. Similarly, Russia makes up for some 24 per cent of EU total gas consumption and 44 per cent of its gas imports. And, Europe's import of Russian gas is expected to double in the next 25 years.

One way of securing Europe's energy supplies is by reducing its import dependency through internal measures, such as adapting the energy mix towards alternative and renewable sources, increasing energy efficiency, and reducing consumption. However, given that the share of oil and gas in the EU's total energy consumption mix will far outgrow its domestic production and demand in the foreseeable future, it is imperative for the EU to forge an effective external energy policy. It is with regard to this international dimension of energy security that the EU has made the least progress. Despite pledges from EU leaders to speak with one voice to third parties and



the Commission's recent conclusion of several agreements with producing states, EU member states continue to conduct their own external energy policy and frequently seek to secure energy supplies through bilateral deals. The two key challenges with regard to the EU's external energy policy concern its relations with Russia and the diversification of its energy imports by exploiting global supply markets.

Doing business with Russia

Given its wealth of natural resources, Russia is bound to remain a key energy partner for the EU. However, the gas row between Russia and Ukraine in the winter of 2006, which resulted in a temporary cut-off of supply to Europe, generated heightened concern within Europe as to their perceived dependency on Russia. In fact, EU-Russian energy relations are marked by a high degree of interdependence. While Russia's Gazprom supplies gas to over 20 European countries, Russia is highly dependent on the EU energy market. Over 60 per cent of Russia's gas and oil exports flow to Europe, providing 60 per cent of Russia's cash earnings. Moreover, Russia is heavily dependent on Western technology to extract reserves for future production.

Despite this factual interdependence, no stable and dynamic EU-Russian energy relationship has emerged. One issue concerns fair, transparent, and reciprocal access to energy resources, transport infrastructure, and markets. As Russian national energy companies increasingly control supply chains of extraction, production, transportation, and sales to Europe, Europeans question the extent to which Russian companies should be allowed to operate in their markets. In response, the EU is insisting on equal access for European companies in Russia's market. However, Russia is unlikely to liberalize its internal market, particularly the transport sector,

and instead insists on EU guarantees for long-term supply contracts.

As Russia has never ratified the 1994 Energy Charter Treaty (ECT) and Transit Protocol that would provide a regulatory framework for EU-Russian energy relations, business is conducted on a case-by-case basis. With Russia continuing to affirm that it still intends to follow the key principles of the ECT, the EU should work to include them in a new bilateral partnership and cooperation agreement, in particular regulatory and dispute settlement mechanisms. As the EU is determined to strengthen the producer-transit-consumer chain in a common regulatory space, shaping such a space with Russia would mark a success that is likely to influence EU energy relations with other countries.

European cohesion is a precondition for the EU to enter into these negotiations from a position of strength. However, beyond the recent mandate approved by the EU Council of Ministers to negotiate with Russia, the positions of member states differ. This is partly the result of their varying degrees of gas import dependency on Russia, which ranges from 100 per cent in the case of Bulgaria, Finland, Estonia, and Romania to 0 per cent in the case of the UK, the Netherlands, Portugal, and Spain. It is also related to the objectives of some European state-owned companies to invest in Russia. Moscow is thus able to employ different rules when dealing with different states and has forged partnerships with some EU members to the detriment of others.

Diversifying suppliers and transportation routes

Diversification is a key aspect of EU energy security, both because Russia is unable to meet Europe's growing energy demand and because it reduces the risk of severe economic consequences in the case of inter-

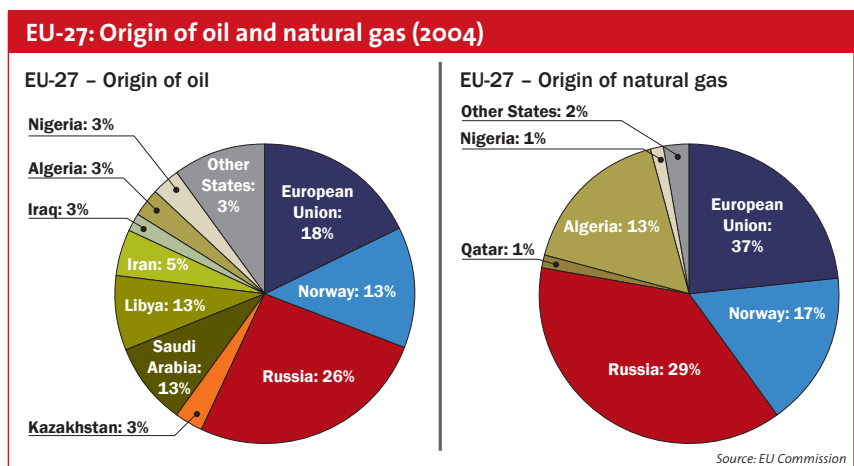
ruptions of energy flows. The main focus of Europe's diversification efforts is on gas. The challenge is not just to find reliable producers, but also to build new transportation routes. Unlike oil, gas is difficult to store and mainly transported in pipelines, which means that gas supply systems are regional rather than global. Currently, Europe's gas transportation infrastructure is tied to Russia, Algeria, and Norway. Until liquefied natural gas (LNG) processing and terminals for tanker transportation are more fully developed, the EU will have to build new pipelines if it seeks to diversify its gas supplies.

The main focus with regard to energy diversification has been on intensifying relations with countries of the Caspian Sea region, i.e., Azerbaijan, Kazakhstan, Turkmenistan, and Iran. This region has the twin advantages of holding large reserves of undeveloped gas and oil and of being situated geographically south of Russia, allowing for direct transportation lines to Europe. The major EU-supported Nabucco pipeline is projected to transport Caspian gas through Turkey across Bulgaria, Romania, and Hungary into Austria. The Turkey-Greece-Italy (TGI) pipeline and the Trans-Adriatic Pipeline (TAP), run by Swiss EGL and Norway's StatoilHydro, are also designed to carry Caspian gas into the heart of Europe.

Nabucco and South Stream

However, Russia has been very effective in competing with these European projects by supporting its own pipeline projects. Blue Stream is a trans-Black Sea pipeline constructed by Gazprom and Italy's ENI to carry gas from Russia to Turkey. The same two companies are now pursuing the South Stream pipeline project that would carry gas from the Russian coast of the Black Sea to Romania, Bulgaria, and Greece and from there on a south-western route into southern Italy and on a north-western route into Serbia and Hungary, continuing on to Austria or northern Italy (see map on page 1).

Although South Stream is considered by many experts not to be commercially viable, it serves as a counter to Nabucco and renders the European project less competitive. Bulgaria, Greece, Hungary, and Serbia have already signed cooperative agreements with Russia. Hungary, in particular, hopes to become a new hub for Russian gas to Europe. Because this would undermine Austria's role as a hub for Nabucco gas, Vienna is now contemplating the idea of integrating Nabucco with South Stream and filling the pipe-



line with Russian gas. Similarly, Greece is proposing to fill the TGI pipeline with gas from Russia.

European gas diversification efforts face several additional challenges. The EU must compete for Caspian gas with the Russian, Chinese, and Southeast Asian markets. Moreover, the demarcation of the Caspian seabed among the littoral states remains an unresolved issue, which could negatively affect transportation. Furthermore, while Iran's massive gas reserves make it a potentially important supplier for the EU, in particular for the Nabucco pipeline, this largely depends on a resolution of the question of its nuclear program. Some experts predict that the real growth areas for European gas supplies are in North Africa and the Middle East. If the EU seeks to create a comprehensive gas supply system that is as interdependent as possible, it will have to intensify its relations with these regions, despite the difficulties of doing business with many of the producer countries.

The more Europe relies on external gas supplies, the more need there will be for regulatory, legal, and dispute settlement mechanisms. The EU will want to ensure that the environmental impact of producing states is limited by an expanded Kyoto Protocol. Moreover, strengthening the work of multilateral organizations, such as the International Energy Agency and the World Trade Organization, can help to regulate competition for limited routes and supplies. The EU should continue to improve conditions for private investment in producer countries in cooperation with the US and the World Bank. At the same time, the EU will want to ensure that its demand does not undermine European Neighborhood Policy objectives of economic liberalization by making states dependent on payments for hydrocarbons.

The way ahead

The EU energy strategy of March 2007 is an important milestone towards a common energy policy. Yet, the challenges remain formidable. It will be difficult to create a fully integrated internal market as long as external supply sources are concentrated in Russia. It will be equally difficult to diversify supplies as long as vertically integrated energy companies resist ceding a share of their domestic markets and their privileged relationships with individual producers. Finally, until Europe strengthens its own internal energy market, it will be difficult to encourage its suppliers, such as Russia and Algeria, to do the same.

The three pillars of the EU energy strategy – competitiveness, security of supply, and sustainability of energy – are interlinked. Therefore, it is essential that the Europeans define priorities and develop an integrated framework. This will require the EU members to intensify their debate on how to translate policy statements into concrete actions in each of the pillars. In the near term, a comprehensive strategic EU approach towards energy security is unlikely to emerge. Given rising energy prices, growing demand, and unpredictable suppliers and routes, this lapse could impact negatively on the economies of European member states.

- Author: Stacy Closson
stacyclosson89@hotmail.com
- Responsible editor:
Daniel Möckli
moeckli@sipo.gess.ethz.ch
- Language editor:
Christopher Findlay
- Other CSS Analyses / Mailinglist:
www.isn.ethz.ch
- German and French versions:
www.ssn.ethz.ch