STRATEGIC
COMMUNICATIONS

RUSSIA, THE EU, AND ENERGY

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As the only political body of its kind, the European Union faces challenges that are unfathomable by other countries. One of the largest challenges facing the European Union over the next few decades is the issue of energy security, diversification, and eventual energy autarky as outlined in the Energy Roadmap 2050. As a global leader in climate-conscious energy, Europe is looked upon as the trendsetter of sustainable practices and alternative fuels. This role, however, will be undermined if we continue on our present energy course. The EU's increasingly complex relationship with Russian energy monopoly Gazprom and a lack of alternative energy sources places Europe in a difficult position to reach its energy goals.

ENERGY DEPENDENCE

The EU is strongly dependent on energy supplies from Russia. For several Member States this results in weak negotiation positions towards Russia and the risk of supply cuts. The EU has to continue to diversify its energy mix to have a more reliable and affordable energy supply.

- The EU imports exceed export by 943.6 million toe;
- 36% of the EU's gas and 31%supply originate from Russia;
- Russia aims to strengthen its influence through bilateral negotiations and direct pipelines;
- In times of decreasing domestic gas production, the EU has to look for new sources of energy, including its domestic shale gas resources.

Over the last few decades, Europe's domestic production of hard coal, lignite, crude oil, natural gas, and nuclear energy has steadily declined as supplies of raw materials become exhausted or producers considered the exploitation of limited resources uneconomical. Following this trend, the EU-27's imports of primary energy exceeded exports by around 943.6 million tons of oil equivalent (toe). Logically, the largest net importers were the most populous Member States, with the exception of the United Kingdom and Poland where there are still domestic reserves of oil, natural gas, and coal.[1]

To supply its energy needs, Europe has turned to the East. The state-owned Russian gas monopoly Gazprom is by far the largest supplier of natural gas, crude oil, and coal to the European Union. In 2009, 36 percent of the EU's total gas imports originated from Russia, 31 percent of the EU's total crude oil imports came from Russia, and 30 percent of the EU's coal imports were shipped from Russia. However, the relationship works both ways. In the same year, 80 percent of total Russian oil exports went to the EU, 70 percent of total natural gas exports came to Europe, and 50 percent of Russia's total coal exports ended up in European markets.[1] Even in this buyer-seller relationship, Gazprom holds the upper hand. The Russian energy giant's exports are sold under long-term contracts, and are thus relatively immune to lower prices on spot markets. In addition, Gazprom is actively working to boost its storage capacity in Europe, with initial plans to double its storage capacity from 2.6 billion cubic meters to 4.9 bcm in 2015, a move that will place Gazprom high on the rankings for largest storage operators in Europe.

Until recently, the main avenue of Russian oil flow was through the pipeline network of Ukraine. This made European energy supplies subject to fluctuations in Ukraine-Russia relations. The most recent example of this was the cut in gas supplies to Europe in the winter of 2011-12. Russian officials claim that Ukraine was siphoning off more than its share; an allegation that Ukrainian officials deny. Either way, Austria and France recorded gas volume cuts of up to 30 percent, and Italy stated supplies were down by 24 percent amidst a spell of extreme cold.

To diversify its energy imports, and bypass the so called "transit countries" of Ukraine and Belarus, two direct pipeline projects have been implemented. The first, the Nord Stream Pipeline, is projected to pump up to 55 billion cubic meters of natural gas per year to EU countries. Gazprom owns a 51 percent share in this project, as compared to German companies BASF-Wintershall and E.ON Ruhrgas, each with a 20 percent stake, and the Netherlands-based company Gasunie which holds the remaining 9 percent.[1] On the southern end of the continent, the South Stream Pipeline, scheduled to begin construction in December of 2012, has a projected capacity of 63 billion cubic meters per year.

Together, the Nord Stream Pipeline and the South Stream Pipeline, while securing Europe's energy supplies, could also place it under the whims of Russian foreign energy policy and will make it increasingly difficult for Europe to break its energy dependence on Russia. On the one hand, the recent decision by the German government to phase out nuclear power will further increase German dependence on Russian gas through the Nord Stream pipeline, and will serve as a gateway into Western Europe. The South Stream pipeline, on the other hand, will stall attempts to bring Caspian and Middle Eastern gas into southeastern Europe and prevent Turkmenistan from cutting out Gazprom in its exports to the continent. The recent events in Bulgaria regarding its oil shale exploration are a testament to Russia's influence in Eastern Europe

GAZPROM'S INFLUENCE: BULGARIAN DEPENDENCE

Currently, Bulgaria buys gas from Gazprom at more than four times the price than in gas-producing countries (Bulgaria pays around $420 for 1,000 cubic meters compared to an average price of $120 in the United States), and is subject to Gazprom's limits on availability, as shown during the gas cut-off of 2009. Russia provides roughly 92% of Bulgaria's gas supply.[1] In order to break this dependence on Russian oil, Bulgaria has been exploring the possibility of shale gas. Bulgaria's Ministry of Economy and Energy estimates it could have 300 billion to 1 trillion cubic meters, or 100 to 250 years worth of shale gas, and polls suggest that 75% of Bulgarians support shale gas exploration with appropriate environmental safeguards. In 2011, the Bulgarian government granted Chevron an exploration lisence to determine the volume and scope of Bulgaria's oil shale reserves.

In January of 2012, public protests against hydraulic fracturing (the process by which shale gas is removed from the earth) erupted across the country. The Bulgarian parliament subsequently voted to ban the process and revoke Chevron's exploration lisence. While the public protests were legitimate, the parliamentary ban was not. The action to ban hydraulic fracturing was led by three parliamentarians from the Socialist Party, two of whom have signed agreements with Gazprom in their former capacity as government ministers, and one who has been close to the consultant of the Belene nuclear plant, one of the three major Russian energy projects in Bulgaria. In addition, the parliament made this decision without an expert assessment by any scientific institution in the country.

The evidence for Gazprom influence, and, by extension, Russian government influence, in this ban is supported by five facts. First, Gazprom supplies more than 90 percent of the gas consumed in Bulgaria. Second, Gazprom has been steadily infiltrating Bulgaria's retail fuel market, most recently in its approval to purchase 7 more filling stations by NIS Petrol EOOD (a company owned by Gazprom).[1] Third, in his presentation "Gazprom: New Horizons", Gazprom's CEO Aleksei Miller outlined a series of projected natural gas pipelines across Bulgaria to deepen Gazprom's market share in Eastern and Central Europe. Fourth, Gazprom's 51 percent share in the South Stream Pipeline project, which will run through Bulgaria. Finally, the move was led by the head of the parliamentary economic committee, Valentin Nikolov, and not by the Environment Ministry. Nikolov was allegedly influenced by the fact that the natural gas contract between Bulgaria and Gazprom expires in 2012.

HOW TO AVOID BULGARIA'S FATE

The rest of Europe may soon be in the same position if it does not find diversity in energy supply sources. While in 5 years time Europe will start receiving gas from the Caspian region through the Southern Gas Corridor, further diversification is needed. However, traditional suppliers are not up to the challenge. Before the revolution, Libya was producing around 1.55 million barrels of oil a day, 79 percent of which was exported to the EU. Of these exports, 9 percent went to Spain, 10 percent to France, 14 percent to Germany, 32 percent to Italy, and 14 percent to Serbia, the UK, the Netherlands, Austria, Portugal, Ireland, Greece, Sweden, and the Czech Republic.[1] However, Libyan oil production and export shut down when the citizens rose up against Qaddafi, and exports only resumed in September 2011. While production is returning to pre-war levels, an estimated 10 percent of Libya's oil infrastructure was severely damaged, possibly requiring hundreds of millions of dollars to repair.[1] This, coupled with the unpredictable future political climate, rules Libyan oil out as a steady, dependable prospect for European energy security.

The North Sea has been a major oil production area and supplier to Europe since its first significant production in the 1970s. By 1998, North Sea oil production represented nearly 9 percent of world oil production. However, after the peak, production has steadily begun to decline. In 2011, oil exploration activity in the North Sea fell to only 15 wells, a 50 percent decrease. Although prices remained high, annual production declined by 18 percent.[1] Denmark remains the only country that is still a net exporter of primary energy, as the UK's production has slowed. Nevertheless, even if reports of 30 or more years of North Sea production are true, the North Sea is one of the last remaining outlets for domestic oil production, and with barely enough reserves to sustain the countries that drill it, it is not a viable supplier of energy security to the whole of Europe.

The Nabucco pipeline is an EU-backed attempt to import gas without Russian interference. The proposed pipeline would run from Turkey, across the Strait of Gibraltar into Bulgaria, then further on into Romania, Hungary, and Austria. If completed, this line would provide the EU with gas from either connections in Azerbaijan or Iraq. However, Iraq is not currently a serious candidate due to the political turmoil caused by the U.S. led invasion. The other option, acquiring gas from Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan, is presently unviable as the four countries have only guaranteed around 20 percent of the required gas due to

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committed gas sales to Russia, export opportunities to China, and strong domestic demand. The possibility of this pipeline is further diminished by Gazprom's acquisition of a 50 percent share in the gas transmission center at Baumgarten in Austria, the EU-designated final destination of the Nabucco project. These facts suggest that using the Nabucco pipeline to exclude Russia from gas exports to the EU is all but a lost cause.[1]

The last avenue of possible alternative energy sources comes from the United States. The development of new techniques, such as hydraulic fracturing and horizontal drilling, has transformed the United States into the world's largest gas producer. Fields in Pennsylvania, Ohio, and Texas are estimated to hold enough fuel to supply the US for over thirty years at current consumption rates. However, the United States has only recently begun to harness its shale gas potential, and the lack of export infrastructure is a testament to that. Transporting Liquid Natural Gas, or LNG, overseas first requires terminals to super-chill the gas to its liquid form, then specially designed tankers for shipment, and finally a re-gasification terminal at the destination to load the gas back into pipelines for local distribution. Plans are being laid for the construction and operation of these terminals, but there is no large-scale export activity as of date.[1]

In order to reach the goals set forth in the Energy 2020 strategy and the Energy Roadmap 2050, Europe must find a way to wean itself off Russian energy dependence. The Energy 2020 strategy commits European leaders to acquire 20 percent of their energy needs from renewable sources such as biomass, hydropower, wind, and solar.The ultimate goal, as outlined in the Energy Roadmap, is reducing carbon emissions by over 80 percent by 2050. These are lofty goals, and cannot be presently accomplished with the course that Europe is set on. The first step is to avoid getting locked in to Russian energy supplies, a task made difficult by the lack of viable, large-scale alternatives. However, Europe does contain a natural resource that has been, until recently, uneconomical to harness.

SHALE POTENTIAL

Shale gas in itself is not a path to energy independence, as long-term production in Europe is unproven. Even in the United States, the leader in shale gas production, output data goes back only 20 years. This being said, shale gas provides Europe with a transitory energy source that will first diversify its energy sources, and second, allow for breathing room to move towards the Energy Roadmap 2050 goals and the ultimate goal of developing renewable sources of energy as the primary sources. Although Europe has not produced a drop of LNG domestically, the EU's gas supply has already benefited from shale gas. Cheap natural gas destined for an oversupplied US market has re-routed to Europe, providing competition for the more expensive Russian supply. This greater availability of cheaper short-term and spot market gas means that renegotiations of terms between Gazprom and its European customers will be more frequent, and Europe will have more bargaining power in determining the price, volume, and length of these energy contracts.

There is no clear-cut path that will magically lead Europe to energy independence by the middle of the century. The European Union as a whole and each member state individually must begin to lay the groundwork needed to achieve this goal now. The first step of this process is breaking free of Russian energy dependence, diversifying energy imports, and utilizing available alternative domestic sources. With these projects underway, the European Union will have the breathing room needed to begin implementing policy to further the goals outlined in the Energy Roadmap.

Kerstin Duhme
Managing Director

FTI Consulting
Avenue Marnix 23
1000 Brussels
+32 (0)2 289 0875
Kerstin.Duhme@fticonsulting.com

Thank you to Alex Edrenkin for his contribution to this article

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