Energy (in)security: challenges and prospects for the European Union and Baltic States

Martins Hirss
Andris Spruds

As discord between the European Union (EU) and Russia deepens, EU Member States must pose the question whether Russia will continue to provide sufficient, reliable, consistent, and affordable deliveries of natural gas to Europe. Energy security has once more come to the forefront of EU priorities. This brief starts with an overview of mechanisms that the EU has developed for strengthening energy security for its Member States. More specifically this paper reviews recent developments in the Baltic States, evaluating the role the EU has played in enhancing energy security. Finally, we will look at the future prospects for energy security within the Union.

With the first deliveries to Lithuania's new LNG import terminal in December 2014, the Baltic States will finally have an alternative natural gas supply route to Russian pipelines.

Photo source: flickr.com/photos/lens_envy

A common EU energy policy?

Energy security is expensive. Development of an alternative delivery infrastructure is costly, takes a long time, and usually requires international cooperation. It is an investment against a threat of supply disruption that, in the future, might never happen. It is often hard for leaders to sell such long term projects to their constituencies. Due to these factors, most states struggle to develop alternative supply routes. Nonetheless the EU takes energy security seriously. The EU has already developed good legal frameworks and mechanisms for promoting the energy security of its Member States. The challenge now remains to make steady progress in implementing these policies.

The 2009 Lisbon Treaty added an energy policy dimension to EU competencies, transferring elements of the national energy policy from Member States to the EU. The energy policy laid out in the Treaty aims at a "solidarity between Member States" in order to "ensure security of energy supply", and increase energy efficiency and the use of renewable resources, as well as the development of "the interconnection of energy networks". Interconnections among Member States would increase diversification of natural gas supply sources, which is the key element for enhancing energy security. These commitments from the Lisbon Treaty also flow through other EU policy planning documents. The 2014 European Energy Security Strategy even adds that improvements are necessary for "coordination of national energy policies and speaking with one voice in external energy policy".

Since 2009 the EU has had funding for regional EU projects creating trans-European energy networks. The newest European Commission initiative for the period 2014 - 2020 titled "Connecting Europe Facility" offers €5.85 billion for cross-border projects like the Baltic Energy Market Interconnection Plan (BEMIP), which aims at integrating the Baltic States in the European electricity and natural gas

network. There is a strategy for enhancing the energy security of the Baltic States and obtaining financial assistance for its implementation. However, regarding implementation, the EU has been most successful in promoting sustainability and the use of renewable energy, rather than energy security. The EU has paid far more attention on the "20 20 20" renewable energy targets rather than strengthening the energy security of its Member States. Development of renewable energy resources has not helped to significantly decrease European dependency on Russia's natural gas. Implementation in other areas of the EU energy policy, including a unified voice in external energy policy, is lagging behind.

Projects promoting energy security have been characterized by inaction and slow progress. Developing energy infrastructure projects is resource and time intensive. Agreements for international cooperation, planning, and construction - even in best case scenarios - can take decades. For example, in the case of BEMIP, the Baltic States have found it hard to agree on the construction of an EU co-sponsored LNG terminal. Latvia, Lithuania, and Estonia were unable to reach an agreement for a location of the LNG terminal in 2011. So, in 2012 the European Commission stepped in and ordered an independent research to identify the most suitable location. This study decided Finland was the most suitable location, providing a natural gas pipeline is constructed to Estonia. In early 2014, after much deliberation, Finland and Estonia announced the construction of two LNG terminals. This proposal was shut down by the European Commission who declared it would not finance two terminals. Lithuania, who in contrast decided to fly solo without EU support or the cooperation of other countries, has been far more successful in constructing its floating LNG terminal. Despite mechanisms offered by the EU, Lithuania, working on its own, has managed to make unprecedented steps towards energy security for the Baltic States

Will American LNG replace Russian gas in Europe?

Increasing LNG import capacities would decrease European vulnerability to supply cuts from Russia. In this context, the potential of importing LNG from the US to replace Russian natural gas should not be overestimated. Spot market prices for LNG in Asia are significantly higher than those in Europe. When the US starts exporting LNG, Asia will be the most likely export market. However, prospective US LNG exports will contribute to the global gas market liquidity. Moreover, the conclusion of the EU-US Transatlantic Trade and Investment Partnership may provide a positive impetus for more intensified EU-US energy trades.

Norsk bokmål: AGAs LNG-terminal i Nynäshamn
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The Baltic States: vulnerabilities and opportunities

According to a recent study *An Embargo of Russian Gas and Security of Supply in Europe* conducted by the Institute of Energy Economics at the University of Cologne[1], the country most vulnerable to natural gas delivery disruptions in the Baltic Sea Region is Finland. Finland is 100 percent dependent on a single supplier of natural gas - namely, Russia. Finland lacks alternative supply routes and self-storage capacity. In the event Russia stopped natural gas deliveries during winter, Finland would experience shortages within one month. In a three month period without natural gas deliveries from Russia, Poland and Bulgaria would be next affected. In six months without deliveries from Russia, especially during a harsh winter, most of Europe would be left out in the cold.

Despite having 100 percent dependence on natural gas deliveries from Russia, the Baltic States are arguably less vulnerable than Finland due to a number of safeguards. First of all, in the short term natural gas in the Baltics can be supplied from the Incukalns Underground Gas storage, one of the largest (2.3 bcm) underground gas storage facilities in Europe. Second, in December 2014, the Lithuanian LNG import terminal in Klaipeda, whose total capacity may reach 4 bcm per year, will become operational. This terminal uses the LNG carrier *Independence*, designed as a floating LNG storage and regasification unit. Operating on full capacity, this LNG terminal, in theory, would be able to fulfill 75 percent (5.6 bcm per year in 2011) of the Baltic States' total natural gas consumption, with Incukalns underground gas storage operating as a balancing point during winters when consumption increases. For the first time the Baltic States will have an alternative supply route for their natural gas deliveries, decreasing the danger from an emergency Russia might attempt to create with energy supply interruptions. Lithuania has already managed to negotiate an approximate 20 percent discount on Gazprom's natural gas price, which was one of Europe's highest.

Another issue that remains a considerable challenge in the Eastern Baltic Sea region is a lack of interconnectedness among States via pipelines. The old Soviet pipeline system, with Russia at the center, provides natural gas to Eastern members of the EU. The Baltic States and Poland are currently working on a natural gas pipeline connecting Lithuania with Poland. It is at present in the planning phase, with an estimated completion date, at the earliest, in 2018. Such a pipeline would integrate the Baltic States in the European system, as well as give Poland access to natural gas from the Lithuanian LNG terminal, and Incukalns Underground Gas storage. The most optimistic estimates give at least five years until the completion of this pipeline. After completion the three Baltic States will have three alternative sources of natural gas supplies. Notwithstanding the profitability issue, redundancy provides an insurance policy for energy security.

In addition there are three other prospective projects enhancing energy security currently in development. Lithuania is slowly moving forward with its own underground natural gas storage in Syderiai. The storage volume of this facility is planned to be at least 500 mcm, and despite delays its estimated completion date is late 2019. The *Balticconnector* natural gas pipeline between Estonia and Finland, as well as the LNG terminal construction in Finland, are in the first exploratory stages. Moreover, unlike in the natural gas sector, Baltic countries have already become an "energy peninsula" in terms of electricity connections. For example, Estlink connects Finland and Estonia. In 2014 construction of the LitPol Link, an electricity link between the Baltics and Continental Europe, began. Regional electricity connections contribute to an already functioning energy market, and provide additional tools to enhance energy security. Apart from Lithuania's gas projects, the majority of the regional projects are supported by the EU through the BEMIP.

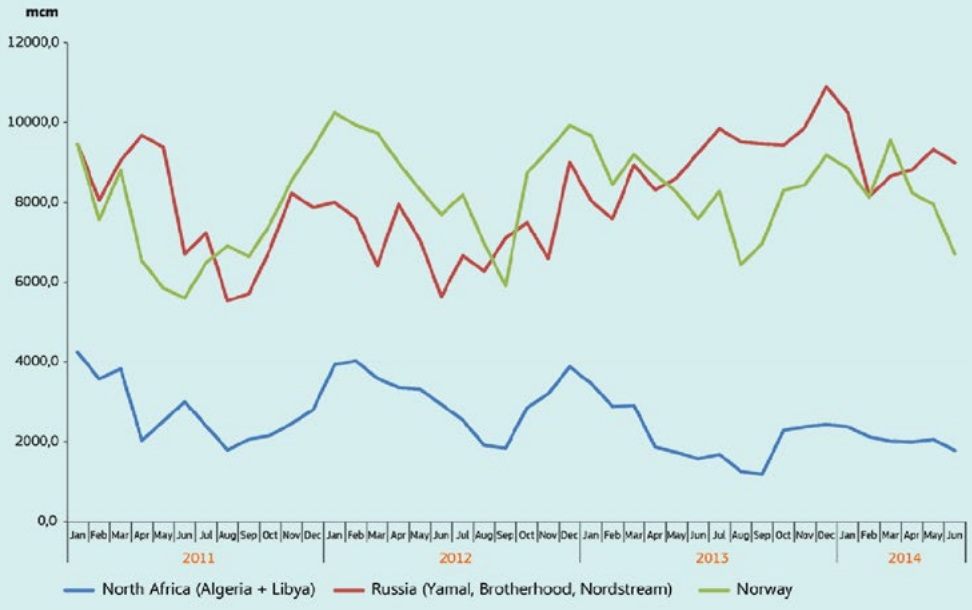
[1] Harald Hecking, Christopher John, Florian Wiser *An Embargo of Russian Gas and Security of Supply in Europe*, Institute of Energy Economics at the University of Cologne, 2014. Available: http://www.ewi.uni-koeln.de/fileadmin/user_upload/Publikationen/Studien/Politik_und_Gesellschaft/2014/2014-09_An_Embargo_of_Russian_Gas_and_Security_of_Supply_in_Europe.pdf

Upgrading EU energy security: the Russia factor

Up until this point the EU and individual Member States have made slow strides towards energy security. Right after the EU acquired their energy security dimension in 2009, the organization was hit by the financial crisis and from that time on adopted a cost saving approach towards energy security. Some regional initiatives have moved forward, while others have stagnated. Discrepancies in natural gas import prices from Russia amongst different Member States prevail. Currently, potential disruption in deliveries from Russia would catch some EU Member States unprepared. This has been revealed by recent stress tests coordinated by the European Commission. Hence, during winter Russia may have a powerful bargaining chip against the EU – natural gas deliveries.

Russia perceives energy resources as a strategic commodity and uses them in foreign policy. Putin's Russia has become increasingly confident in using its energy corporations such as Rosneft, Gazprom, and others, to execute political and economic goals. Russian influence on those "near abroad", especially the Commonwealth of Independent States (CIS), is not based solely on military strength but also indispensable dominance over the energy infrastructure. Although Russia uses energy resources in foreign policy mostly against other CIS states, Europe is embroiled in Russian energy geopolitics as well. Russia sets different prices for natural gas deliveries for different countries in Europe. Russian energy leverage is most effective in bilateral relations with smaller states and its direct neighbors. In 2013 Germany paid Gazprom $379 (US) for 1000 cubic meters of gas, while Poland paid $526 (US)[2]. For years Russia has undermined European attempts to create alternative natural gas

FIGURE 1 - PHYSICAL PIPELINE FLOWS INTO EU



Source: Bentek/Platts, republished from: European Commission, DG Energy, Market Observatory for Energy, *Quarterly Report: Energy on European Gas Markets,* Volume 6 (issues 3 & 4; third and fourth quarter of 2013) and Volume 7 (issues 1 & 2; first and second quarter of 2014). Available: http://ec.europa.eu/energy/observatory/gas/gas_en.htm

Note: Russian flows include landing points Velke Kapusany, Drozdowicze , Wysokoe, Mallnow, Greifswald-NEL, Nordstream Greifswald, Norwegian flows include landing points Zeebrugge, Dunkerque, Dornum, Emden, St Fergus and Easington.

[2] Radio Free Europe/Radio Liberty infographic *Gazprom's Grip: Russia's Leverage Over Europe*. Available: http://www.rferl.org/contentinfographics/gazprom-russia-gas-leverage-europe/25441983.html

supply routes, especially the Nabucco gas pipeline. During the Russian "gas war" with Ukraine in 2009, in the middle of a cold winter, natural gas flow to Central Europe was fully cut off for 11 days.

Since 2009, following this major supply disruption and armed with the Lisbon Treaty, the EU has been actively working to counter Russian use of energy resources in foreign policy. In addition to the aforementioned overarching energy security strategies aimed at diversification, the EU has attempted to limit the influence of the Russian state-owned gas giant Gazprom in the EU, and created mechanisms to use in case of supply disruption. These are as follows: first, the 3rd Energy Package allowed the "unbundling" of energy companies; splitting ownership of gas sales and gas pipelines. Lithuania, for example, has used this mechanism to force Gazprom into selling shares in the Lithuanian national gas company Lietuvos Dujos, and newly-created gas transmission network operator Amber Grid, thus decreasing Gazprom's influence over the Lithuanian gas market.[3] Second, if any company wants to buy transmission system operator shares in a Member State, the 3rd Energy Package requires consultations with the European Commission and Member States have to take the "utmost account of the Commission's opinion".[4] This clause aims to prevent non EU countries and companies from acquiring strategic EU energy assets. Third, Decision No. 994/2012 requires Member States to notify the Commission of new and existing bilateral intergovernmental agreements with third countries in the field of energy. The Commission will make these agreements available to all other Member States and this, in theory, should decrease Gazprom's capability to have strikingly contrasting deals with each Member State. Fourth, in the case of a supply cut, EU Regulation 994/2010 allows a ban on LNG exports out of the EU, and can make industry cap its use of gas in order to prioritize and protect European households. Now with relations between the EU and Russia breaking down after the Russia – Ukraine war, energy security is a priority for new EU leaders.

Former Polish Prime Minister Donald Tusk was one of the most vocal European leaders promoting the Energy Union. In his article "*A united Europe can end Russia's energy stranglehold*" he stated that: "Europe should confront Russia's monopolistic position with a single European body charged with buying its gas."[5] Although a single body idea was largely dismissed, Donald Tusk became President of the European Council while his ideas contributed to the new European Energy Security Strategy. Mr Tusk is not alone among the new EU leaders. President of the European Commission, Jean-Claude Juncker, as a second priority of his presidency, has declared regarding energy security: "**I want to reform and reorganize Europe's energy policy in a new European Energy Union.** We need to pool our resources, combine our infrastructures and **unite our negotiating power vis-à-vis third countries.**" And continues: "…if the price for energy from the East becomes too expensive, either in commercial or in political terms, Europe should be able to switch very swiftly to other supply channels. We need to be able to reverse energy flows when necessary."[6]

The creation of an effective Energy Union is indeed important. A more coherent energy policy and prospective multilateral negotiations with Russia about delivery prices should be the long term goal for the EU. Multilateral negotiations with third countries may lead to more coordinated approaches, and potentially decrease energy import prices. Also, interconnectedness and liberalization of the energy market would create a more competitive internal market and allow the EU to benefit from a market of scale, ensuring enhanced energy security to its member states. The efficient Energy Union, however, remains yet to be created.

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[3] More: Andrius Sytas, *Gazprom sells Lithuania assets after antitrust fine,* Reuters, June 12, 2014. Available: http://uk.reuters.com/article/2014/06/12/uk-lithuania-gazprom-idUKKBN0EN1IF20140612

[4] *Art. 11. Certification in relation to third countries*, Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC

[5] Donald Tusk, *A united Europe can end Russia's energy stranglehold*, Financial Times, April 21, 2014. Available: http://www.ft.com/cms/s/0/91508464-c661-11e3-ba0e-00144feabdc0.html

[6] *My priorities*, Jean-Claude Juncker's personal home page. Available: http://juncker.epp.eu/my-priorities

European shale gas "revolution"?

There is little chance of significant shale gas extraction in Europe in the near future. Europe currently does not have its own indigenous fracking industry. European property laws create obstacles for fracking. Compared to the US, European shale deposits are deeper underground and Europe already has widespread opposition to hydraulic fracking. Widespread shale exploration near urban sites would only strengthen this opposition. Furthermore, some European countries, such as France and Germany, have banned hydraulic fracking on home ground. Extraction in shale gas friendly nations such as the UK and Poland may become a litmus test for the future of the shale gas industry in Europe.

Conclusions

Since the Lisbon treaty came into force in 2009, the EU has had a policy, and funding, for promoting energy security for its Member States. As the case of the three Baltic States demonstrates, challenges remain for the international cooperation required to enhance energy security. Some progress has been achieved, but a consensus among EU Member States, especially about the location of where projects worth hundreds of millions of euro should be based, remains hard to achieve. Despite this, the EU has the necessary legislation and plans for enhancing energy security for its Member States. Energy security has become one of the top priorities for the Union. New EU leaders are well aware of vulnerabilities the European energy market has, and have set an ambitious goal: to create a European Energy Union. The EU must follow through with its current European Energy Security Strategy. Increased local and renewable energy production, diversification of external supplies, and development of a fully integrated internal market are achievable and necessary goals, even if progress might be slow and challenging. An interconnected, liberalized, and far less vulnerable Europe is currently and continuously in the making.

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Latvian Institute of International Affairs (LIIA)
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Address: **21 Pils street, Riga, LV-1050, Republic of Latvia, liia@liia.lv**

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Martins Hirss

Martins Hirss is a Research Fellow at the Center for Security and Strategic Research, Latvian National Academy of Defense

Andris Spruds

Andris Spruds is the Director of the Latvian Institute of International Affairs

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