Baltic energy security - no longer a regional energy island

The 2009 Russian-Ukrainian gas crisis spurred the Baltic states to diversify their imports and decrease their dependence on Russian gas. With the risk of energy being used as a political and economic weapon, the three small states have been striving to achieve energy self-sufficiency and an open gas buying market.

The opening of the floating liquefied natural gas (FLNG) terminal in Klaipeda in January 2015 has demonstrated Lithuania’s successful efforts to reduce its heavy gas import dependence on Russia and Gazprom. The terminal has given Lithuania and the other two Baltic states a credible alternative and leverage to renegotiate gas prices with Russia. It will shield all three against any future politically motivated energy supply disruptions and monopolistic price dictates. The terminal is a strategic game changer, not only for Lithuania’s energy security, but also for the entire Baltic region and beyond. The Baltic states can increasingly rely on themselves in guaranteeing their energy security for the first time in their modern history. Their efforts offer some important lessons for other European countries.

Energy dependency

The 2009 Russian-Ukrainian gas crisis highlighted the consequences of severe supply disruptions and alerted the Baltic states to their energy insecurity and vulnerability through being isolated from the European energy networks. All three Baltic states had been completely dependent on Russia for their gas imports.

In the wake of Russia’s annexation of Crimea, the EU conducted a gas stress test in 2014 to analyse the resilience of the EU energy system to a potential gas crisis. It confirmed previous analyses that the Baltic states, together with Finland, Bulgaria and Hungary would be the most severely affected.

Despite their common energy security concerns, there are important differences between the Baltic states. Estonia has been the second least dependent state on energy imports among all EU member countries (after Denmark) as its main fuel for power generation was its shale oil at 81 per cent with renewables contributing another 15.2 per cent, in 2012. Gas accounted for just 10 per cent of its total energy supply, or 0.7 bcm, in 2012.

For its energy security Latvia has relied on its huge underground gas storage site at Incukalns, whose capacity of 2.3 billion cubic metres (bcm) is more than double the country’s annual gas consumption of 1.1 bcm in 2013. Yet the country remains 100 per cent dependent on Russian gas supplies and is also one of the leading exporters of crude oil from Russia and Kazakhstan, to the European markets via its port of Ventspils. To make matters worse, the Incukalns facility is controlled by Gazprom, which thereby has the power to regulate supply during the peak demand period in winter.

Lithuania was the most vulnerable Baltic state until recently due to its 100 per cent dependence on Russian gas.
imports and its 37 per cent share in its national gross final energy consumption. It has spearheaded efforts to diversify its gas imports and reduce its dependence on Russia. Gazprom had charged Lithuania one of the highest gas prices at US$460-490 per 1,000 cubic metres, compared with an EU average gas price of US$370-380 – some 30 per cent more than Germany paid in 2013.

Shale - an unpopular alternative
The previous conservative Lithuanian government actively supported the exploration of its shale gas reserves in order to increase the country’s independence from Moscow until losing power in 2012. But the new Social Democratic government, under Prime Minister Algirdas Butkevicius, did not support this policy initially and struggled to cope with domestic opposition and public hostility towards shale gas extraction.

It offered a tender and legislation with unattractive conditions to foreign energy companies and investors. In October 2013, the United States energy company Chevron left the country after committing to invest US$80 million in exchange for a seven-year shale mining licence. The government declared that other foreign companies would come in to replace Chevron. However, none has so far.

Symptomatically, Chevron’s withdrawal did not cause much public concern for the country’s energy security. Amid a public information vacuum and governmental failure in shaping and directing discussions on national shale gas development, public opinion still supports farmers’ and landowners’ environmental interests over those of energy companies and national energy security.

Lithuania’s energy security also deteriorated after the closure of the Ignalina nuclear power plant in December 2009, which was producing 70.7 per cent of the country’s national electricity. It then became increasingly dependent on electricity imports, particularly from Russia. Although Lithuania plans to build a new nuclear power station with a capacity of 3,000–3,200 MW, rising costs and other uncertainties have complicated the project, which has been awarded to Japanese energy company GE Hitachi Nuclear Energy.

Energy networks
Already by June 2009, eight Baltic Sea states had launched an action plan to connect Lithuania, Latvia and Estonia to EU energy networks. It included building new electricity and gas interconnectors to link the Baltic States with Poland and the Nordic countries, or upgrading existing ones, such as the Poland-Sweden cable.

The aim was to enhance energy security by diversifying gas pipeline routes and suppliers. This involved building new gas interconnectors, upgrading existing ones to allow reverse flows of natural gas, and the development of a liquefied natural gas (LNG) terminal and gas storage sites.

At the end of 2009, the Baltic Energy Market Interconnection Plan (BEMIP) established a list of priority projects. It included building a cross-border Polish-Lithuanian gas pipeline (‘GIPL’) with a capacity of 3-5 bcm and a reverse flow option to increase free-market trading between Poland and the Baltic states. This pipeline has been designated a Project of Common Interest (PCI), identifying it as one of the most important energy infrastructure projects that receive EU financial support.

Baltic states diversification strategy

- Diversify natural gas supplies by building FLNG terminal, developing shale gas reserves and building interconnectors with EU gas pipeline network
- Unbundle gas transit and distribution networks by implementing EU’s Third Energy Package, thus curbing the monopoly power of distributors such as Gazprom
- Expand gas trading hubs to integrate storage facilities
- Connect local electricity grids with those of the Nordic countries, Poland and other EU members
- Provide incentives for energy efficiency and conservation
Progress and remaining challenges
Lithuania was the first country to adopt the EU’s Third Energy Package (TEP) designed to eliminate power and gas companies’ monopoly control of distribution networks. Gazprom tried to block the EU’s and the Baltic states’ unbundling and gas diversification efforts. But the EU’s liberalisation attempts have been strengthened by the impact of the global LNG and US shale gas revolutions. They have undermined Gazprom’s business model and its long-term contracts based on oil-indexed prices in Europe. In May 2012, Gazprom finally accepted Lithuania’s pipeline unbundling plan and sold its stakes in the two gas distribution companies, Lietuvos Dujos and Amber Grid.

In contrast, the Latvian government has been very slow to implement the EU’s TEP, fearing Russian countermeasures as the country has the highest concentration of ethnic Russians of all the Baltic states. As long as Gazprom controls Latvia’s gas pipeline and gas storage sites, Estonia is concerned that a regional LNG terminal in Lithuania would not guarantee its supply security.

Instead, it has opted to build its own LNG terminal and has studied the feasibility of a sea pipeline connection with Finland’s gas network alongside its existing bilateral power bridge. However, two LNG terminals in the Baltic region have been considered uneconomical by the European Commission, which declared that it would not fund another LNG project. But other infrastructure projects, such as the implementation of the power interconnectors between Lithuania with Poland (‘Litpol’) and Sweden (‘NorthBalt’), are on track.

Other alternatives
These newly built interconnections will give Lithuania and the other two Baltic states access to imported power from the Nordic countries, where electricity is usually cheaper than in the Baltic markets. Moreover, the EU’s financial support for the construction of the bi-directional GIPL pipeline was finally secured in October 2014 by sharing the costs of 471 million euros between Poland and all three Baltic states. Its initial capacity will be 2.3 bcm per year with the potential to increase it to 4.5 bcm for another.
66 million euros. Lithuania has also offered Ukraine the prospect of supplying it with LNG from its Klaipeda FLNG terminal via GIPL. Deliveries could begin in 2018.

Following Russia’s annexation of Crimea, the Lithuanian government realised it had not supported shale gas development sufficiently. Prime Minister Butkevicius devoted special attention to energy policies during a visit to the US in October 2014, in which he tried to persuade US companies to take part once more in new shale gas and shale oil exploration tenders announced in 2015. The government has also simplified tender conditions and offered more attractive financial incentives - but so far, without success.

Gaining access to global gas markets is strategically significant, not only for Lithuania’s energy security, but also for the entire Baltic region and beyond. Ten per cent of its new hydrocarbon resource tax collected from its shale projects will be given to the municipalities as an economic incentive to strengthen their support of the projects. According to new geological analyses, the Lithuanian shale resources contain much more shale oil (70 per cent) than shale gas (30 per cent).

Lithuania’s FLNG terminal in Klaipeda, which began operations in 2015, was part of the EU’s new ‘Energy Security Strategy’ of May 2014 as one of the most important measures to increase Europe’s energy security. The Floating Storage and Regasification Unit, officially called ‘Independence,’ is a faster and cheaper option than a terminal built on land. It was built in South Korea and sailed to Klaipeda arriving in the autumn of 2014. Lithuania has leased it for 10 years with the possibility of renewal at a cost of some US$690 million.

Litgas, a gas trading arm of state-owned power group Lietuvos Energija, has a five-year contract with the Norwegian Statoil company to buy 0.54 bcm of gas annually. It is linked to spot market gas prices on the NBP (National Balancing Point) index, in contrast to Gazprom’s oil-indexed prices. Litgas has also entered into 12 non-binding purchase agreements with other suppliers (including Cheniere Energy and Qatari companies) that would enable it to buy gas on the global spot market.

Scenario A: The most likely: a game changer for the Baltic states
The terminal becomes a powerful strategic tool for maintaining competition among regional gas suppliers. Its existence already forced Gazprom to grant a 24 per cent price discount to US$370 (down from US$488) for 1,000 cm of Russian pipeline gas in May 2014 by re-negotiating its bilateral gas contract for another four years. Russia’s non-transparent price formula changed five times between 2005 and 2012.

It enabled Lithuania to conduct an arbitration claim for more than 1 billion euros against Gazprom (initiated in October 2012). Despite cheaper Russian gas prices, Lithuania will further reduce its gas imports from Russia and increase its LNG imports for using the full capacity of its FLNG terminal as it guarantees its supply. The Baltic Port Organisation has promoted a new initiative for a bunkering network across the Baltic Sea. Here, ships have had to use low sulphur fuel since the beginning of this year, which could well lead to LNG becoming one of the preferred alternative fuels for ships.

Scenario B: the least likely: a return to high Russian gas import dependence
Lithuania has to decide by the end of 2016 whether it will prolong a long-term gas import contract with Russia. Its giant neighbour still accounts for 80 per cent of Lithuania’s gas imports and supplies and much of its 70 per cent of electricity imports. Given Russia’s price concessions in a declining European gas market, Lithuania could pay 10 per cent more for LNG imported from Norway than for Russian pipeline gas this year.

Some commentators have feared that a pro-Russian Lithuanian gas company could offer cheap gas prices that
the government cannot ignore - making the FLNG-terminal non-profitable.

The government might be unwilling and/or unable to substitute the more expensive LNG-import option. But this scenario overlooks public opinion, the determining raison d’être of its energy supply strategy and the increasing integration of all three Baltic states into the EU’s common energy market, as well as with its neighbouring Nordic countries, Sweden and Finland.

Scenario C: unlikely: renationalisation

With full market liberalisation postponed in Latvia until 2017, Russia still has some leverage to undermine the Baltic free-trade and integration processes. Despite the European Commission’s rejection of the initial bilateral proposal June 2014, Finland and Estonia made some substantial progress in developing a new joint LNG terminal and pipeline interconnection.

Estonia plans to begin the construction of its LNG terminal in 2016 with the first LNG sales starting in 2019. The long-planned Balticconnector undersea gas pipeline will be built to link two LNG terminals by 2019. Finland will also have access to Latvia’s underground storage site Inukkals. But any financial support by the EU’s Connecting Europe Facility (CEF) grant still depends on a cost-benefit analysis, and a cross-border cost allocation decision by the relevant national regulatory authorities.

If the EU do not grant those funds and Latvia were to cooperate closely with Gazprom and ignore regional integration into the EU’s internal energy market, a return to individual energy policies in the three Baltic countries could not be entirely excluded.

However, all three Baltic states have signed a new common declaration on energy supply last January. In October another cross-border pipeline will be opened from...
Lithuania to Latvia and the European Commission has instruments to prevent such a re-nationalization scenario.

**Scenario D: geopolitical impact beyond the Baltic States**

The 500 kilometre long GIPL gas pipeline between Poland and Lithuania will allow reverse flows of natural gas supplies connecting Lithuania’s FLNG terminal with the Polish gas pipeline network, as well as Poland’s own LNG terminal at the northwestern port of Swinoujscie near the German border. Due to open this summer, the pipeline will have an import capacity of 5 bcm per year (with a potential to expand to 7.5 bcm) – a third of Poland’s national gas consumption. By 2020, both terminals might also be linked with new gas interconnectors and the long-planned LNG terminal on the Croatian island of Krk, as part of the EU’s North-South Gas Corridor.

Although Lithuania is still likely to import some Russian gas after 2016, due to a new gas deal, the fact remains that Russia has largely lost the Baltic gas market. This will have a geopolitical impact beyond the region.