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Towards the Energy Union: The BEMIP and the Case of Lithuania

by Irma Paceviciute

ABSTRACT

In the framework of the EU Energy Union, the Baltic Energy Market Interconnection Plan (BEMIP) represents one of the EU's key political platforms aiming to foster electricity and gas market integration in the Union's least interconnected Baltic region. The purpose of this paper is to measure the extent of the BEMIP's effectiveness in achieving energy sector integration by analysing the case of Lithuania in order to evaluate the Plan's coherence in addressing the EU's energy network deficiencies. The paper also examines the purposefulness of minimum electricity and gas market interconnection requirements set by the EU and to measure the extent to which the Energy Union is successful in urging Member States to adopt long-term national energy and climate strategies, in line with EU policy perspectives.

*European Union | Energy | Lithuania | EU integration | Infrastructures |
Electricity | Natural gas*



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Introduction

Launched in 2009, the Baltic Energy Market Integration Plan (BEMIP) constitutes a political platform initiated by the European Commission and European Union (EU) member states of the Baltic region – Denmark, Germany, Estonia, Latvia, Lithuania, Poland, Finland and Sweden, with Norway as an observer country – to cooperate on improving the region's integration into the continental energy network of the EU. Based on the principles of security, sustainability and competitiveness, the BEMIP upholds the key objectives proposed by the Energy Union – mainly, security of supply (i.e. diversification of supply routes), market integration (removal of technical/regulatory barriers), energy efficiency, decarbonization, and research and innovation. Within the framework of the Energy Union, the BEMIP represents one of the priority regions of the EU market-integration plan: the region's energy-interconnection level with Continental Europe (in principle, with regard to electricity and gas) is relatively limited, raising concerns over the energy security of the Baltic member states. The aim of the Energy Union (and, correspondingly the BEMIP), therefore, is to increase market integration and facilitate/foster energy trade among the EU member states, effectively reducing household energy prices as well as making the Union's energy system more efficient and sustainable in the long run.

Heavily reliant on Russian gas as the main supplier for its power and heating sectors, and devoid of a long-term energy strategy to guarantee security of supply, Lithuania represents the most problematic case of all the BEMIP countries (not to mention the EU overall) regarding lack of energy-sector competitiveness. It is also one of the few member states whose energy demand is estimated to increase over the following decade. The purpose of this paper is therefore to measure, using the case of Lithuania, the extent to which the BEMIP is effective in achieving successful energy-sector integration in order to verify whether the platform is purposeful in

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addressing the EU's energy-network deficiencies. In the context of the minimum electricity and gas market interconnection requirements set by the EU, the aim of the paper is to inquire whether the aforementioned formal requirements are sufficient to guarantee a truly interconnected energy market for the EU. The paper will also attempt to examine whether the BEMIP can assist Lithuania, as well as other member states, to adopt a long-term energy and climate strategy, in line with EU energy and climate-policy projections.

1. BEMIP in the framework of the EU energy strategy

1.1 The gradual amplification of the EU's mandate in the energy sector and the Energy Union

Energy has been of fundamental importance to the European project ever since the establishment of the European Coal and Steel Community in 1951. Nevertheless, a legally defined EU energy policy is a fairly recent concept: Article 194 of the Treaty on the Functioning of the European Union (signed along with the Treaty of the European Union in 2007) establishes a basic legal background for EU competences in the energy field. The Article "draws a line" under EU meddling in the national energy sector of member states, affirming that EU competences "shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply."¹ In particular, the European energy sector has been undergoing significant changes in the past couple of decades, which were to a large extent a result of EU rules on market liberalization and competition law. The Electricity Directive of 1996 was a first attempt to separate vertically integrated national energy companies, whereas plans to foster EU energy-market integration date to as early as 2002, following the decision adopted in the Barcelona European Council, and have been legally enshrined in Decision No. 1364/2006/EC. This Decision was later repealed and replaced by Regulation No. 347/2013 (also known as the TEN-E Regulation) on the functioning of trans-European energy networks, which defined projects of common interest, priority projects and projects of European interest for improving the Union's electricity and gas interconnections. In 2014, the European Council established a 10 percent electricity-market interconnection goal for 2020,² to be further upgraded to 15 percent by 2030. This illustrates how EU governance in member states' energy sectors has been gradually expanding: as the legal source for defining the continent's electricity and gas market rules, as well as the framework for new energy infrastructure, the EU has placed itself in a position

¹ European Union, *Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union*, OJ C 202, 7 June 2016, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:02016ME/TXT-20160901>.

² The electricity interconnection target obliges every member state to have the physical means to transfer a minimum of 10 percent of their installed electricity production capacity to neighbouring countries.

to build up a comprehensive European energy policy.

An institutionalized EU policy for energy security is more recent than the EU regulations on energy-market liberalization and competition, and was formulated in the European Energy Security Strategy of 2014.³ This document – produced in the immediate aftermath of the outbreak of the Russian-Ukrainian conflict, which threatened Russian gas supplies to Europe via Ukraine – revolves around the notion of “security” while focusing on such criteria as sustainability, improved energy-consumer service and competitiveness. In fact, the Strategy urges member states to work on immediate supply-disruption response coordination as well as building a long-term energy vision with a clear preference for gas-supply diversification away from Russia, upgraded cross-border electricity and gas interconnection capacity, and an improved coordination of national energy policies. The final development in the EU energy policy was the establishment, in 2015, of the Energy Union⁴ – a policy framework for improved cooperation on building the energy market as well as electricity and gas interconnections throughout the continent – an ambitious political project, largely dependent on member states’ readiness to cooperate. Regional cooperation – the governing principle of the Energy Union – has been reinforced in the regulation proposal on Energy Union governance, a part of the 2016 Winter Package of the European Commission. The new proposal aims to streamline the political governance of the Energy Union, reduce its bureaucratic burden on the member states and set out requirements for member states to adopt integrated energy and climate plans in line with EU goals for sustainable development. A number of major regional initiatives for cooperation in energy, such as the Pentalateral Forum, the North Seas Countries’ Offshore Grid Initiative (NSCOGI), the Baltic Energy Market Interconnection Plan (BEMIP), the new South-West Europe Interconnectivity Group and the Central and South Eastern Europe Gas Connectivity Group,⁵ establish a sound political platform within the framework of the Energy Union, aimed at fostering energy-market interconnections as well as the implementation of EU regulations in the energy sector.⁶ In the light of the EU’s expanding influence in member states’ energy spheres, this paper will focus on analysing the BEMIP, encompassing the eight Baltic States, as a political tool for improving energy-related cooperation and energy security in the EU.

³ European Commission, *European Energy Security Strategy* (COM/2014/330), 28 May 2014, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52014DC0330>.

⁴ European Commission, *A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy* (COM/2015/80), 25 February 2015, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM:2015:80:FIN>.

⁵ European Commission, *Launching the Public Consultation Process on a New Energy Market Design* (COM/2015/340), 15 July 2015, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52015DC0340>.

⁶ European Commission, *Energy Union: Advancing the Integration of European Energy Markets*, 8 June 2015, <http://europa.eu/HV44pB>.

1.2 Regional focus: the Baltic Energy Market Interconnection Plan

The limited gas and electricity interconnections of the Baltic States with Continental European energy networks render the region one of the most vulnerable in the EU in terms of supply diversification and, therefore, energy security and price. In addition, a focus on energy markets as a means to integrate the Eastern European members of the EU has been playing an increasingly important role in the Union's policy following the Russian-Ukrainian gas conflict and the supply disruption in South East Europe in 2008. In 2009, the European Commission and the eight Baltic member states signed a Memorandum of Understanding establishing the Baltic Energy Market Interconnection Plan (BEMIP), designed to "contribute to the stability and economic growth of the Baltic Sea Region,"⁷ which comprises both regulatory and physical infrastructure measures to foster market integration.

Cooperation between the European Commission, the responsible ministers of the BEMIP states and the accountable electricity and gas institutions forms a trilateral governing structure for the BEMIP in order to serve its political, operational and technical levels of organization.⁸ The BEMIP working plan, which comprises its overall strategy and its project focus, is revised by three working groups, who are also responsible for preparing the BEMIP's progress reports (released every year until 2015, when the Energy Union came into being).

In 2015, the BEMIP was upgraded to encompass, among other aspects, the 10 percent electricity-market interconnection goal, and incorporated into the newly established Energy Union. Energy-market liberalization and the fostering of regional electricity trade constitute the first major objective of the BEMIP, which, as outlined in the Third Energy Package of the EU, requires the unbundling of national gas and electricity generation, transmission and distribution networks as well as ensuring EU regulation compliance – a process that, in the case of the eastern Baltic member states, has almost come to fruition by the end of 2016. Despite the progress made, however, the existing electricity- and gas-supply dependence on Russia that the eastern Baltic states are currently experiencing necessitates the establishment of alternative supply routes, which is the second major goal of the BEMIP. The physical electricity-interconnection target of the BEMIP is implemented through the extension of electricity lines between the Baltic states and their neighbours in Nordic and Central Europe. EU gas-supply security rules, established with Regulation (EU) No 994/2010, assume that "in the event of a disruption of the single largest gas infrastructure," the member states are able "to satisfy total gas demand [...] during a day of exceptionally high gas

⁷ BEMIP High Level Group, *Baltic Energy Market Interconnection Plan. Final Report*, 25 November 2009, p. 1, https://ec.europa.eu/energy/sites/ener/files/documents/2009_11_25_hlg_report_170609_0.pdf.

⁸ European Commission, *Memorandum of Understanding on the Reinforced Baltic Energy Market Interconnection Plan*, 8 February 2016, https://ec.europa.eu/energy/sites/ener/files/documents/ROMANAD_2016.02.08_11.32.52_5C4N2560_1.pdf.

demand.”⁹ Within the framework of the BEMIP, the gas-interconnection goal (less straightforward in its formulation than the 10 percent electricity-interconnection target) is, in principle, designed to integrate the three Baltic states’ and the Finnish gas networks into the Continental European network, as well as to reinforce the gas-pipeline connections between Sweden, Denmark, Germany, Norway and Poland (the countries comprising the so-called West Baltic Task Force).

According to estimates by the European Commission, some 200 billion euros will be necessary to realize the energy-interconnection infrastructure projects planned up to 2020 in the framework of the Energy Union.¹⁰ A range of EU funding structures is available for the BEMIP projects, and, depending on their relevance, the EU could cover up to 75 percent of the total project construction costs.¹¹ Multiple EU-based funding sources have contributed to financing the BEMIP projects thus far – among them, the European Economic Recovery Plan, the European Structural and Investment Fund, the European Regional Development Fund, and the EU Cohesion Fund. Essentially, projects of common interest (PCI), which are of critical importance to the European energy infrastructure but are not commercially viable, are eligible to receive funding from the Connecting Europe Facility (CEF), which aims to provide 5.35 billion euros of project grants over the period 2014-2020. In addition, in 2015, the Juncker Commission established the European Fund for Strategic Investment (EFSI), hoping to raise some 315 billion euros over three years to consolidate public and private investment in infrastructure and development in the EU. The fund has already played a crucial role for energy investment in the EU: from April 2015 to July 2016, the sector attracted 39 percent of EFSI support.¹² Nevertheless, apart from EU funding opportunities, the BEMIP projects also necessitate ample national and private sources in order to realize major energy-infrastructure projects.

⁹ Art. 6 of the Regulation (EU) No 994/2010 of 20 October 2010 Concerning Measures to Safeguard Security of Gas Supply..., <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:32010R0994>.

¹⁰ European Commission, *Achieving the 10% Electricity Interconnection Target. Making Europe's Electricity Grid Fit for 2020* (COM/2015/82), 25 February 2015, p. 10, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52015DC0082>.

¹¹ European Commission, *Ending Energy Isolation of the Eastern Baltic Sea Region: How the Balticconnector – Gas Pipeline between Estonia and Finland – Works*, 21 October 2016, <http://europa.eu/!Wt73VV>.

¹² Anna Roggenbuck and Markus Trilling, *The Best Laid Plans. Why the Investment Plan for Europe Does Not Drive the Sustainable Energy Transition*, September 2016, p. 10, <http://www.counter-balance.org/?p=4569>.

2. Lithuania's energy profile and BEMIP-induced sectorial changes

2.1 A general overview of the Lithuanian energy sector

Lithuania is one of the smallest energy consumers among the BEMIP members, as well as the EU overall, with a total annual energy use, in 2012, of 86 terawatt hours (TWh).¹³ It is worth noting that Lithuania's energy landscape shifted significantly in 2009 following the shutdown of the country's only nuclear power plant, in the eastern city of Ignalina, which used to provide 77 percent of local electricity needs as well as exporting 58 percent of its total electricity production to neighbouring states.¹⁴ The resulting gap in energy supply was filled with increased energy imports – currently, all of the gas consumed in Lithuania, as well as around two thirds of the electricity,¹⁵ is imported. Most importantly, the closure of Ignalina exacerbated the country's single-supplier dependence issue, as Russia provides almost all of Lithuania's 2.4 bcm (billion cubic metres) of annual gas demand and accounts for a significant portion of its electricity imports (63 percent of the total in 2012)¹⁶ – a development that is considered dangerous when viewed through the lens of the EU's Energy Security Strategy. In addition, the Lithuanian energy system is plagued by a combination of low energy-efficiency rates and low personal income. To illustrate this last point, around one third of Lithuania's population cannot afford to keep their homes adequately warm, representing one of the highest rates of energy poverty in the EU.¹⁷ Therefore, measures to improve the country's energy sector are first and foremost focused on providing more affordable energy, reducing efficiency losses and decreasing the consumer-income share of energy expenses.

In 2012, Lithuania unveiled its National Energy Independence Strategy, which outlines the long-term priorities for the country's energy sector in line with EU's 2020 energy and climate goals. Since the excessive level of energy imports – in particular, those from Russia – is considered a national concern, Lithuania's long-term energy strategy is built on the gradual reduction of gas supplies from Russia, replacing them with power produced from nuclear and renewable sources. In fact, the Strategy's long-term outlook suggests that the Lithuanian energy sector will be fossil-fuel free by 2050. Central to the Strategy is the new nuclear power plant project in Ignalina, estimated to come on stream by 2020. However, after a negative vote

¹³ ENTSO, *Gas Regional Investment Plan 2014-2023*, 14 May 2014, <http://publ.com/17OT61y>.

¹⁴ Energy Information Administration (EIA), "Lithuania", in *EIA Country Profiles*, updated March 2013, <https://www.eia.gov/beta/international/country.cfm?iso=LTU>.

¹⁵ Litgrid, *Upward Trend in Electricity Generation and Consumption in Lithuania in 2015*, 23 February 2016, <http://www.litgrid.eu/index.php/news-events-/news/upward-trend-in-electricity-generation-and-consumption-in-lithuania-in-2015-/3113>.

¹⁶ Energy Information Administration (EIA), "Lithuania", cit.

¹⁷ European Commission, *Country Factsheet Lithuania* (SWD/2015/231), 18 November 2015, <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52015SC0231>.

in a consultative referendum in October 2012 regarding the construction of this power plant, the government's determination to pursue the project has decreased significantly and it is currently unlikely that the venture will materialize. This outcome alters the country's long-term energy-policy perspectives significantly, and compels the government to conceive an alternative approach to fostering energy security in the years to come.¹⁸

External developments have also had considerable influence on the Lithuanian energy sector in the past few years, amongst which the most important were the nuclear power plant projects in neighbouring Russia (Kaliningrad) and Belarus. Whereas plans to build a powerful nuclear power plant in Kaliningrad have been significantly modified in favour of providing a smaller version less adapted for power exports, the construction of the Ostrovets plant in Belarus, some 50 km from Vilnius, is considered a national security threat in Lithuania, particularly on account of a number of safety breaches made since the beginning of construction.¹⁹ A nuclear catastrophe on the EU's borders would prove disastrous; therefore, it is in the interest of the Union to spur the Belarusian authorities to impose high security standards for the construction and operation of their power plant. In November 2016, members of the European Parliament passed a resolution urging Belarus to accept "international supervision of the implementation of this project" in order to ensure its security standards²⁰ – a message that however proved insufficient to effectively incentivize Belarus to step up its efforts to correspond to international technical safety norms. The fact that Belarus expects to export some of the power produced at Ostrovets to the European market should be a contributing factor for a more proactive engagement between Belarus and the EU.

2.2 The BEMIP: gradual change in the energy landscape of Lithuania

The physical isolation of the Finnish, Estonian, Latvian and Lithuanian energy markets requires an infrastructural integration process, which involves building the necessary physical gas and electricity links with neighbouring EU countries as well as opening up the countries' gas and electricity markets for trade, and

¹⁸ Although the new National Energy Strategy (encompassing the National Energy Security Strategy) was scheduled for September 2016, its preparation has been delayed by the parliamentary elections in October, which means that reviewing the Strategy is a task of the new government.

¹⁹ Reporting for the Climate News Network, Kieran Cooke points out that Rosatom began laying the foundations for the first reactor in 2012 – a year prior to carrying out the architectural design and being granted a construction licence. In addition, a number of incidents during the construction (such as the 2-4 metres fall of the reactor vessel in July 2016) have been considered as a proof of insufficient security measures employed. The Austrian nuclear research firm flexRISK estimates that a nuclear accident in the Ostrovets power plant would necessitate the evacuation of populations living up to 300 km away from the plant (which encompasses large parts of Lithuania) as a result of the spread of radiation. See Chris Garrard, "Belarus - Fighting Nuclear Power in the Shadow of Chernobyl", in *The Ecologist*, 28 July 2016, http://www.theecologist.org/Interviews/2488867/belarus_fighting_nuclear_power_in_the_shadow_of_chernobyl.html.

²⁰ European Parliament, *Belarus' Efforts to Uphold Democratic Values Are "Insufficient"*, MEPS Say, 24 November 2016, <http://www.europarl.europa.eu/news/en/news-room/20161117IPR51556>.

eventually synchronizing the Baltic and Continental European (or any alternative) electricity systems.

Market liberalization in the Lithuanian energy sector began shortly after the Third Energy Package came into force in 2009. The unbundling of the electricity sector started in 2010 with the separation of operator AB Litgrid from the major energy group UAB Lietuvos Energija, to allow the former to function as the transmission system operator (TSO) three years later. A parallel process in the gas market was carried out in 2013, when the AB Amber Grid was established as the TSO from the virtually integrated gas monopoly AB Lietuvos Dujos.²¹ As of 2013, the Lithuanian gas and electricity networks are considered compatible with EU liberalization terms, providing consumers with the opportunity to choose from a range of independent electricity suppliers. As a result, the majority of large enterprises in Lithuania are already employing the cheaper services of independent electricity suppliers. Smaller companies as well as private households have been considerably less proactive in switching their electricity provider, arguably due to being less well-informed about the alternative options.

The BEMIP has initiated a number of key energy-infrastructure extension projects in Lithuania, prior to which the country's electricity and gas networks were interlinked with those of Latvia, Russia and Belarus, effectively limiting the supplier options to the single largest provider, Russia. Two major grid-extension projects – the LitPol Link (Lithuania-Poland, 500 megawatts [MW] of carrying capacity) and the NordBalt subsea power cable (Sweden-Lithuania, 700 MW of carrying capacity) – were successfully completed in 2016, linking the Lithuanian electricity market with the Nordic and Continental European electricity networks and guaranteeing an alternative electricity-supply option in case of disruption of the electricity flow. In addition, these interconnections also give Lithuania the opportunity to import cheaper electricity from Nordic power producers. The latter option has effectively reduced the Lithuanian wholesale electricity spot price, which, since the introduction of the NordBalt link in February 2016, has proved to be lower during every month of 2016 compared with costs in 2015.²² Consequently, consumer tariffs for electricity have registered a small decrease over the same period.

²¹ It is important to mention that the Lithuanian energy sector was dominated by foreign energy companies for a decade prior to the liberalisation, namely the Russian gas company Gazprom and the German energy company E.ON, which collectively shared the majority stakes in Lithuania's key energy companies (E.ON held 38,9 percent in Amber Grid, 38,9 percent in Lietuvos Dujos and 11.76 percent in Lesto. In parallel, Gazprom owned 37.1 percent shares in both Amber Grid and Lietuvos Dujos). High gas import prices have encouraged the Lithuanian government to take action in order to reduce Gazprom's leverage in the country's energy sector through regaining control of Lietuvos Dujos (national integrated gas company), AB Amber Grid (natural gas TSO) and AB Lesto (national electricity distribution and supply operator). This way, the energy companies were bought back by state-controlled energy groups of UAB EPSO-G and UAB Lietuvos Energija in 2014.

²² Nordpool, *Market Data: Elspot prices (monthly)*, <http://www.nordpoolspot.com/Market-data1/Elspot/Area-Prices/ALL1/Monthly/?view=table>.

The floating-storage and LNG regasification unit in the coastal city of Klaipėda, opened in March 2014, is the one major gas projects that Lithuania has planned and accomplished within the framework of BEMIP. The terminal has a regasification capacity of 3.8 bcm per year, sufficient to cover 90 percent of all the Baltic states' gas demand, and is the only alternative to the country's limited gas-network system (supplied entirely by Russian gas). Under a five-year contract signed in 2014, Lithuania committed itself to importing 540 mcm (million cubic metres) of gas from Norwegian supplier Statoil annually. Despite the fact that the imported LNG gas price is higher than the pipeline contract price, the overall imported gas price had decreased as of May 2014, when Russian giant Gazprom announced its decision to offer a 20 percent price discount to Lithuania for the period 2013-2015.²³ The LNG contract with Statoil was amended in early 2016 and extended to a ten-year period for importing an annual 370 mcm of gas, as a result of Lithuania's shrinking gas demand.²⁴ In addition, the Lithuanian gas company Litgas managed to negotiate a 15-20 percent cost reduction for Norwegian gas imports, effectively shrinking the price gap between LNG and pipeline gas. According to estimates, Lithuania used 2 bcm of gas in 2016, a quarter of which will be met through LNG imports – thus reducing Gazprom's market share.²⁵ It is expected that gas-price discounts will continue into mid-2017.²⁶

Lithuania is also planning its first gas interconnection with continental European markets, through Poland: on 15 October 2015, the Gas Interconnector Poland-Lithuania (GIPL) project was granted funding from the Connecting Europe Facility, which will cover more than a half of the total construction costs. With a total capacity of 2.4 bcm per year, this pipeline project aims to further diversify gas supplies in the Baltic states; it should come on stream by 2019.²⁷

Lithuania's electricity system has been a part of the BRELL (Belarus, Russia, Estonia, Latvia, Lithuania) electricity ring, integrated into the larger IPS/UPS²⁸ synchronized zone controlled centrally from Moscow – a system designed under the Soviet regime. Geopolitical and safety concerns over Russia's dominance²⁹

²³ "Gazprom Temporarily Offers More Expensive Gas Pricing for Lithuania", in *The Baltic Course*, 15 January 2016, <http://www.baltic-course.com/eng/energy/?doc=115398>.

²⁴ "Lithuania Negotiates LNG Price Cut with Statoil", in *LNG World News*, 25 January 2016, <http://www.lngworldnews.com/?p=174156>.

²⁵ Joanna Hyndle-Hussein, "Norway's Statoil Competing with Gazprom on the Lithuanian Market", in *OSW Analyses*, 3 February 2016, <https://www.osw.waw.pl/en/publikacje/analyses/2016-02-03/norways-statoil-competing-gazprom-lithuanian-market>.

²⁶ "Gazprom Temporarily Offers More Expensive Gas Pricing for Lithuania", in *The Baltic Course*, 15 January 2016, <http://www.baltic-course.com/eng/energy/?doc=115398>.

²⁷ European Commission, *End of Energy Isolation in the Baltics: How the Gas Interconnector Poland-Lithuania (GIPL) Works*, 15 October 2015, <http://europa.eu/!NR46pV>.

²⁸ UPS corresponds to the Unified Power System of Russia, whereas IPS stands for Integrated Power System for the countries of Eastern Europe, Caucasus and Central Asia.

²⁹ In order to ensure secure electricity flow the network has to be constantly monitored and the infrastructure upgraded. As the IPS/UPS system is centrally controlled in Moscow (unlike the decentralised Continental European network), all information regarding the condition of the

in the Lithuanian electricity sector had prompted the Lithuanian Government to consider potential ways of synchronizing the country's electricity network with the Continental European system as early as 1998. As outlined in the Action Plan of 2015, the electricity-system synchronization of the three Baltic states is one of BEMIP's key projects; however, progress has been slow due to a number of feasibility studies that are currently being carried out in order to find the optimal solution. Analysis by the Swedish consulting firm Gothia Power, conducted in 2014, concluded that the required system transfer would hardly be feasible before 2025.³⁰ It is estimated that the system synchronization should cost between 435 million euros and 1.07 billion euros, which would be partly covered by EU financial-aid schemes,³¹ and would necessitate the building of a second LitPol Link connection in order to fully comply with interconnection-infrastructure requirements. The sixth report of BEMIP, in 2014, questioned the usefulness of the synchronization, as the financial expenses incurred in the process were thought likely to outweigh the economic benefits.³²

The BEMIP goes hand in hand with the Lithuanian National Energy Security Strategy, discussed previously; however, the two are not fully compatible, which further complicates a coherent vision for enhancing the country's energy network. The Strategy's conditionality on biomass and nuclear energy renders it vulnerable, given the limits of the eco-friendly use of biomass (of a scale that would not trigger deforestation) and the potential failure to realize the Visaginas nuclear power plant. Apart from this – and plans to construct several small-scale gas, biomass and waste power plants – the Lithuanian energy sector lacks any significant projects that could substantially increase the country's self-sufficiency. Despite Lithuania's commitment to improve energy efficiency at the rate of 1.5 percent a year until 2020, energy consumption in the three Baltic states is estimated to expand by 1.3 gigawatts (GW) during the same period,³³ thus putting pressure on Lithuania's energy system. On the other hand, gas-interconnection projects like the LNG terminal and the GIPL pipeline have contributed significantly to increasing the potential of gas-supply volumes in Lithuania, which seems almost counter-intuitive in the context of Lithuania's plans to gradually reduce and terminate the use of gas, as outlined in the Strategy. Therefore, one must conclude that the inability of the Lithuanian Government to model a reliable and realistic projection of the country's future energy system creates a setback for the BEMIP. The Plan has aided Lithuania to decrease its reliance on Russian energy supplies; however, the

energy infrastructure is not shared with other network participants, including Lithuania, which raises concern for the security of the electricity flow.

³⁰ Litgrid, *Synchronous Electricity Systems*, May 2015, p. 1, http://www.litgrid.eu/uploads/files/dir221/dir11/6_0.php.

³¹ *Ibid.*, p. 9.

³² European Commission, *BEMIP 6th Progress Report: July 2013-August 2014*, September 2014, https://ec.europa.eu/energy/sites/ener/files/documents/20142711_6th_bemip_progress_report.pdf.

³³ Lithuanian Ministry of Energy, *Nacionalinė Energetinės Nepriklausomybės Strategija* [National Energy Independence Strategy], 26 June 2012, <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.429490>.

country's self-sufficiency remains unaddressed as Lithuania's electricity and gas imports have only been redistributed and not reduced.

3. The BEMIP, Energy Union and the EU: Lithuania in a broader perspective

The BEMIP has had a tremendous impact on the shifting energy landscape in Lithuania by fostering a more consumer-friendly environment in the country's energy sector. On the other hand, the responsible authorities in Lithuania have been incapable of conceiving a prudent and robust energy transition strategy, as a result of which the country will remain highly dependent on energy imports in the short to medium term. It is therefore necessary to emphasize that, within the framework of the BEMIP, the European Commission should demand a more coherent vision of the national energy network and infrastructure, based on the most optimal and sustainable solutions. The widespread impact of the BEMIP can be broken down into several important aspects, analysed through the specific case of Lithuania but illustrative of the Plan's effects on a more global scale.

3.1 Improving the EU energy interconnections

Among the Energy Union's regional platforms, the BEMIP remains the most successful example of regional cooperation for achieving better interconnectedness. The BEMIP has secured the implementation of projects to connect the Baltic states and Finland with Continental Europe and Scandinavia, which have in turn contributed to ending the isolation of the eastern Baltic states, effectively reducing Russia's leverage in the region. It has also improved the interconnections of the western Baltic region, by enhancing Poland's electricity and gas links to its neighbours. In the assessed case of Lithuania, the BEMIP has helped the country to reduce consumer energy prices – an outcome that corresponds to the Energy Union's goal of guaranteeing secure and affordable energy for EU citizens. Projects to reinforce electricity links with neighbouring countries have already raised Lithuania's interconnection rate to over 10 percent.³⁴ In parallel, the Klaipėda LNG terminal has contributed to securing a viable alternative to Russia's gas supplies, thus drawing Lithuania closer to the gas-interconnection requirements of the EU.

3.2 Budget and costs

The BEMIP and other regional platforms of the Energy Union are highly dependent on external investment – mostly from national budgets and credit, as well as the multiplier effect to attract private funds.³⁵ It is important to note that

³⁴ European Commission, *Speech by Vice-President for Energy Union Maroš Šefčovič at the Meeting with Local Stakeholders, Academia, Representatives of Public and Regional Authorities, Klaipėda University, Lithuania, 23 February 2016*, <http://europa.eu/!TN76bB>.

³⁵ Beata Tuszyńska and Frédéric Gouardères, "Financing the Trans-European Networks", in

energy security-related projects are seldom economically viable, which makes their usefulness questionable in an environment of fiscal rigidity. In this context, Lithuania's ambition for energy independence is limited to decreasing its reliance on Russian energy sources; no measured strategy of achieving self-sufficiency through sustainable actions (corresponding to the long-term vision of the EU) has yet been conceived, as the country's major projects revolve around building interconnections rather than power-production units. In the light of the wavering plans for a new nuclear power plant in Ignalina, the European Commission should have exerted more pressure on Lithuania to conceive an alternative strategy to guarantee energy self-sufficiency. Lithuania's continued reliance on imports creates a basis for a national debate over the economic value of the interconnection projects thus far realized (most notably, the LNG terminal), taking into account both the benefits of (at least in the short-term) reduced electricity and gas prices and the long-term costs of these projects, which are borne by Lithuania's taxpayers.³⁶

3.3 Regional cooperation and rivalry

Despite the tremendous progress made on market liberalization and infrastructure expansion, reaching common ground in order to strategically allocate projects within the eastern Baltic region has not always proved easy or perfectly optimized. For instance, all three Baltic states submitted a bid to build an LNG terminal, inciting bitter intraregional disagreements. Furthermore, there are concerns over the feasibility of two LNG terminals in the eastern Baltics (in Finland and in Lithuania), as both will potentially compete for customers in the limited regional gas market. In addition, Lithuania's initiative to construct a second LitPol Link cable has not been met with much enthusiasm on the part of Poland, which sees little national benefit in the latter project despite the fact that it is of vital importance to Lithuania's plans to proceed with electricity-system synchronization with wider continental Europe. These and other examples illustrate the element of competition prevalent in designing the BEMIP's "road map," which can exacerbate the successful and coordinated implementation of strategic regional projects. In this regard, one could question the pertinence of the broader goals of the Energy Union, such as stepping up the interconnection target to 15 percent by 2030 before thoroughly examining the effects of, and the costs incurred on the national level by, the interconnection projects implemented thus far.

European Parliament Fact Sheets on the European Union, October 2016, http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_5.8.2.html.

³⁶ To illustrate, the debate on the LNG terminal in Klaipėda revolves around the long-term financial burden incurred: since the Lithuanian government does not own the LNG carrier, it is subject to pay around 615 million euros for its rent over a ten-year period, which, put together with the LNG price increases the overall cost of the gas imports. On the other hand, increased energy security as a result of resource diversification and Gazprom's reduced gas price are counter-arguments to support the construction of the LNG terminal.

3.4 Sustainable energy transition

The Energy Union emphasizes the importance of *sustainable* energy use as a leading principle in developing the European energy network. However, as illustrated by the case of Lithuania, plans to augment the use of renewable energy rely exclusively on the extended use of biomass – a rather dubious choice given the environmental limits of its potential exploitation. According to Lithuania's Energy Ministry's expectations, renewable energy should account for 35 percent of the country's energy consumption in 2030 and for 70 percent in 2050. Nevertheless, the Lithuanian Government currently expresses no willingness to promote the expansion of wind and solar power capacity for fear of additional expenses incurred by the feed-in tariff and related mechanisms for rewarding renewable-electricity producers.³⁷ Therefore, it seems that the BEMIP gives little incentive for member states to adopt robust renewable-energy development plans, incorporated in a well-conceived long-term energy-transition strategy.

Conclusion

The Lithuanian example has demonstrated that the BEMIP has been successful in fostering energy-sector integration in the EU through enhanced electricity and gas interconnections. Efforts to promote market competition in the BEMIP countries have already shown tangible results in the Lithuanian electricity and gas sectors, and contributed to improved conditions for energy consumers. The BEMIP has strengthened Baltic – and, in particular, eastern Baltic – energy-network interconnections, thus proving the usefulness of the Energy Union in the context of the EU's energy security. The Plan can be therefore considered as a case of successful member-state cooperation in the energy sector, possibly adoptable in other regions of the EU. Nevertheless, it should be noted that the necessity to improve energy-network interconnections resulting from dependence on a single, largest external-energy provider, coupled with intricate political and economic relations of the countries concerned, is stronger in the case of the eastern Baltic states and their relationship with Russia than in any other region of the EU. Therefore, the need to implement energy-network interconnection projects is considered less pressing in, for example, Western Europe. Different national priorities in the geopolitical sphere of energy issues divide Western and post-communist Central and Eastern Europe, thus undermining the Energy Union by exposing its inability to fully implement a common European vision.

³⁷ There are currently 500 MW of wind power capacity installed in Lithuania. In April 2016 Lithuanian Minister of Energy Rokas Masiulis spoke about the government's plans to commission an additional 250 MW of wind energy, however, he stated that there would be no support mechanisms or priority grid access for the new projects.

Despite its success, the BEMIP initiative still lacks coordination with national energy strategies – as is demonstrated in the case of Lithuania. In particular, the current framework of the BEMIP – and, indeed, the Energy Union itself – does not guarantee a coherent, sustainable energy-sector development strategy at either member-state or EU level. The case of Lithuania suggests that the European Commission should bring more pressure to bear on a member state that fails to adopt a prudent national energy strategy backed up by alternative proposals. The new Energy Union governance proposal – a constitutive part of the 2016 Winter Package – aims to address this issue by obliging member states to align their national energy-sector plans with the Energy Union goals – in particular, to foster sustainable energy transition in the EU. A failure to impose a clear Union-level policy trajectory would put its further goals – such as the 15 percent interconnection target – into question. It remains to be seen whether the Energy Union governance proposal will be effective in promoting a truly coordinated, sustainable energy policy, successful in addressing EU energy-network deficiencies.

Since its establishment in 2009, the BEMIP has been reinforced through the introduction of a number of reforms, and the positive results that it has achieved thus far constitute a motivating factor for continuing the project. The BEMIP has also contributed to strengthening the image of the Energy Union, which despite being a relatively recent concept has already established itself as one of the EU's most important initiatives. In the context of the shifting energy landscape in Europe, the Energy Union has the potential to develop into a valid political platform, overseeing and guiding much-needed changes in the European energy networks. As mentioned previously, the Energy Union should be reinforced through better governance and improved member state action coordination. Furthermore, it should also aim to enhance the energy dialogue with neighbouring countries, an issue exemplified by the Belarusian nuclear power plant being built on the EU's border.

Energy has become one of the most important issues on the EU policy agenda. The European Commission's decision to consolidate its decision-making power in the energy sector through the establishment of the Energy Union has great potential to reinforce the EU's role in both internal and external affairs. Nevertheless, the success of the Energy Union relies largely on the European Commission's readiness to embrace substantial governance reforms – included those designed to enhance regional cooperation – as well as new sustainable-energy technologies and decentralized energy-market concepts, which are likely to become the foundation of the future energy world.

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