JAKUB M. GODZIMIRSKI
RAMŪNAS VILPIŠAUSKAS
ROMAS ŠVEDAS

ENERGY SECURITY IN THE BALTIC SEA REGION:

REGIONAL COORDINATION AND MANAGEMENT OF INTERDEPENDENCIES

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Introduction

The main aim of this study is to map changing energy relations in the Baltic Sea region (BSR) and to explore how the regional debate on energy security and energy policy has evolved and been translated into political action in the aftermath of two key watershed events – the 2004 EU enlargement that has changed the political and institutional / regulatory landscape of the region, and the outbreak of the armed conflict in Ukraine that has put the issue of energy security – and security in more general terms – very high on the European political agenda. It should be noted that both events should be seen in a longer-term perspective. The wish to join the EU had been gradually changing trade relations and regulatory norms of Central and Eastern European candidates (this group includes the Baltic States), while the accession itself was an important factor placing energy security issues on the EU agenda. Also, supply of energy resources from Russia has been an object of political tensions between the customer or transit countries in Central and Eastern Europe for more than a decade before Russia's aggression against Ukraine in 2014, exerting important influence on energy policies of those EU member states which continued to purchase most of their energy resources from Russia, Baltic countries in particular. The latter factor explains why the energy security has been one of the most important European policy priorities of those countries since their accession to the EU.

This study has a clear geographical focus and examines the framework conditions for energy relations and energy policies of 8 EU member states (Finland, Sweden, Denmark, Germany, Poland, Lithuania, Latvia, and Estonia), of one European Economic Area (EEA) member

(Norway) and of the main external energy supplier of energy to Europe and at the same time a source of strategic concern, Russia. This group of countries – EU member states and a member of the EEA – is referred to in this study as a sub-region or the BSR to differentiate it from the regional integration within the framework of the whole EU (and the EU and the EEA). In order to understand how framework conditions in these countries have changed over time, we will take two snapshot pictures of energy situation in the region and map how the regional energy landscape has changed between 2004 – the year of the big bang enlargement – and 2014, the year of the definite end of 'the end of history' in the region, marked by Russian actions in Ukraine. Data used in this study stem from various sources, but to secure data consistency the two main sources used are the IEA annual data from 2004 (published in 2006) and 2012 (the last available set of data published in 2014), and the Eurostat that provides the most important data on energy situation in the EU and in member states. These data will be supplemented when necessary with data from other sources.

The main focus of the first part of the study is on how the regional distribution of energy resources and energy policies of various actors involved in the regional energy game have contributed to increasing or decreasing the level of energy security in the whole region and in particular countries. The second part focuses on how various actors have addressed energy security concerns by taking various types of policy measures. In other words, the first part discusses in detail the actual changes in the patterns of trade and the character of interdependencies which characterise the dependent variable – energy security, while the second part of the study discusses the independent variable – regional and sub-regional cooperation which can account for the changes in the regulatory environment and infrastructural connections, which can increase energy security in the BSR.

The case of the Baltic Sea region is interesting because the policy measures and coordination initiatives have been aimed at redirecting flows of trade in energy resources rather than just managing the existing ones more effectively by agreeing on common rules of managing interdependencies and the methods of implementing them. Differently from the most cases of regional cooperation when policy coordination instruments are used to manage the existing interdependencies (for example, as it was the case when the European Coal and Steel Community and the European Atomic Energy Community were founded in the 1950s), some EU member states which acceded in 2004 were still largely isolated from the rest of the EU and remained part of the post-Soviet network of trade in electricity and natural gas.

However, the attention of the Baltic States and to some extent of Poland was not so much on managing the existing networks of dependency from Russia, but on creating infrastructural and regulatory conditions to provide alternative sources of supply and to reduce the existing asymmetries of interdependence with one dominant supplier. It is argued that such a policy is aimed mostly at achieving several objectives such as introduction of competition to exert pressure on prices set by dominant suppliers and increasing security of supply that was to be achieved by reducing the asymmetry of interdependence, by enhancing the coordination of policies and by the use of the common EU norms and involvement of EU institutions to increase the bargaining power vis-à-vis external suppliers like Russia.

In other words, we argue that the regional organizations such as the EU and sub-regional coordination initiatives like the Baltic energy market interconnection plan (BEMIP) and others provide important instruments for the policy makers in the participating countries to alter the patterns of interdependencies in energy resources and to increase the energy security. They do so by:

- providing regulatory tools to open up the regulatory environment for competition and, in such a way, diversification of the sources of supply;
- providing common rules and resources for solving the collective action problems when participating countries disagree on which rules should be adopted and how resources for the infrastructural projects should be distributed;
- dissemination of good practices in regulating energy markets, such as the Nordic electricity exchange, which served as an example for the Baltic States.

The extent to which each country of the BSR uses these resources and regulatory instruments provided by the EU and sub-regional initiatives depends on the approaches to those issues adopted by national policy makers and interest groups, and their interaction. As a rule, policy makers are driven by broader ideas about the appropriate economic and energy policies, their objectives and the most appropriate instruments as well as by political cycles and re-election motives. Interest groups are driven by profit maximization (or rents, if they are provided with monopoly rights). Those interest groups which benefit from the existing interdependences (vertically integrated companies, other established energy producers, intermediaries of trade in natural gas or electricity, etc.) are interested in preserving them and try to protect them from potential competitors, while those who could gain from the introduction of competition and alternative sources of supply (industrial users of energy, potential intermediaries of trade from alternative sources of supply) support initiatives which could change the status quo. Thus, interaction between policy makers and interest groups affects the way regional initiatives are used by particular countries.

In this study, we limit our analysis to the discussion of the changing actual patterns of interdependences of the energy trade in the Baltic Sea region and the effects of the EU and sub-regional initiatives on the management of those interdependencies. Finally, it should be noted that from the perspective of the EU the accession of the Baltic States and other Central and Eastern European countries increased the interdependence of the EU with such external suppliers of energy resources as Russia and therefore increased incentives to manage these interdependences. The antitrust inquiry initiated by the European Commission against Gazprom in 2012 is one of the examples of the active management of interdependence and enforcement of the EU norms. It is also an example of how the EU member states which still have been asymmetrically interdependent on supplies of natural gas from Russia can benefit from the EU membership as an instrument to increase their bargaining power vis-à-vis Russia.

In order to be able to address those questions, we need to present some operational definitions of the key concepts used in this study and place this study in a broader political, institutional, and geographical context.

Energy security has been understood in various manners (for probably the most complete overview of defintions of energy security, see Sovacool 2011). For example, the International Energy Agency defines it as 'uninterrupted availability of energy resources at an affordable price'. For the purpose of this study, we will use the definition proposed in the study on energy security of 22 OECD members and in other analytical texts (Sovacool 2011; Brown et al. 2014). Energy security is understood as consisting of four interconnected criteria or dimensions: availability, affordability, efficiency, and environmental stewardship.

Availability refers to diversifying the fuels used to provide energy services and minimizing dependence on foreign suppliers, especially if

there is only one external source of energy resources available and the external supplier has thus a quasi-monopolistic position on the local market, which until recently has been the case with Russia on the Baltic market for natural gas. It should be noted that, as some energy experts argued, 'in an open global economy importing energy is not a problem in itself – so-called energy independence is not only unachievable for most of the developed world, but there is also a danger that the use of import dependence as a criterion may lead to the decisions that are absurd with respect to the growth and protection of the environment, such as the very costly development of first-generation biofuels produced in Europe' (Mandil 2008:6). We are aware of the limitations of this criterion and deal with it by discussing the diversity of import sources, the type of trade interdependence between suppliers and customers as well as by using other criteria to assess energy security.

Affordability refers to providing energy services at affordable prices and minimizing the impact of price volatility.

Efficiency involves improving the performance of energy equipment and altering consumer behavior in order to reduce energy price exposure and mitigate energy import dependency.

Stewardship is about building a sustainable energy system that would be harmful to neither social nor natural environment (Brown et al. 2014: 65).

The terms of *interdependence* and *dependence* are also important. The latter means 'a state of being determined or significantly affected by external forces'(Keohane and Nye 2011: 8). Interdependence means mutual dependence, while the asymmetry of it is likely to provide a source of influence for actors in their dealings with other actors. Importantly, policy coordination and cooperation between countries and regional initiatives of integrating energy markets are seen as instruments of managing the existing interdependencies or creating regulatory and infrastructural conditions to change them in order to

strengthen energy security in all four dimensions. Cooperation among groups of countries to integrate energy markets requires 'active attempts to adjust policies to meet demands of others', that is 'not only does it depend on shared interests, but it emerges from a pattern of discord or potential discord' (Keohane 1984:12).

How the countries in question define and pursue their goals and address the four dimensions in the field of energy security depends on several factors: their endowment with energy resources, the distribution of energy resources, energy supply and demand on regional and global energy markets, the existence or the lack of energy infrastructure and the appropriate regulatory environment needed for the supply and distribution of energy and the resulting actual flows of trade in energy resources, the way energy policy priorities are defined and actually implemented by policy makers interacting with interest groups, and, last but not least, the way energy interests are defined and pursued by other players in the regional and global energy game.

Global interdependencies and technological innovations allowing, for example, for a more efficient exploitation of shale gas and oil in the US, cheaper LNG or renewable resources, emergence of a spot market for natural gas, increasingly affect regional and national energy markets and policies by creating new opportunities and constraints for energy users and suppliers. The Transatlantic Trade and Investment Partnership (TTIP), currently negotiated between the EU and the US, is another example of how broader policy coordination might alter transatlantic trade relations and improve the energy security of the EU. Endowment with natural resources and geographical location are given, but the way energy policies are designed and implemented is influenced by the political priorities of the countries, by those countries' institutional affiliations, interaction of policy makers and interest groups which have a stake in the existing energy interdependencies and coordination and integration policy measures which might alter them, and by the evolution

of the global and regional system of energy governance that defines the rules of the energy game and helps to organize the relationship between states – and other energy stakeholders – and markets (for the impact and evolution of energy governance, see Goldthau and Witte 2010; Lesage et al. 2010; Dubash and Florini 2011; Florini and Sovacool 2011; Baccini et al. 2013; Graaf 2013; Ramsay 2013).

As mentioned above, in this study we focus on regional organizations and sub-regional initiatives which increasingly have been affecting the regulatory and infrastructural environment in the BSR and how these policy measures have affected energy security of participating countries.

In the case of the sub-region in question, the fact that 8 out of 10 countries are currently members of the EU is the most important institutional factor defining their choices in energy policy. It is, therefore, obvious that, in order to understand the process of energy policy formulation and implementation in the BSR, we need to understand how energy policies are shaped in the EU, what impact they may have on energy policies of member states and on the ways they choose to address their energy security dilemmas (Matlary 1997; Eberlein and Kerwer 2004; Eberlein 2008; Birchfield and Duffield 2011).

The EU energy policy in general aims to address three key concerns. The first is the question of the impact of energy use on the competitiveness of the EU economy. The second is the question of the sustainability of energy production and use. The last is the question of the security of supply, the importance of which originates from the fact that 53 per cent of energy has to be imported into the EU to cover energy needs. Similar priorities have been proposed by other organizations – for example, the World Economic Forum (WEF) in assessing the global energy architecture performance and the corresponding index for particular countries evaluates economic growth / development, environmental sustainability and energy access / security (World Economic Forum

2013). It should be stressed that for particular member states of the EU the relative importance of those three concerns can vary significantly, as witnessed by the Baltic States and Poland which have prioritised security of supply and competitiveness over sustainability, while the Nordic countries and Germany have given a relatively larger importance to the latter. It should be noted that with the increase in the gap of energy prices among different countries, economic uncertainty in the EU, stronger concerns over security of supply from Russia and uncertainty over the global agreement on the further steps to reduce greenhouse gas emissions, the debate about prioritizing the competitiveness and security of supply has intensified in those countries as well (Pedersen 2014).

The EU energy policy has a number of specific features. Two of these features are particularly important. The first one is that in addition to specifying the objectives of ensuring the functioning of the energy market, ensuring of security of energy supply in the Union, promoting energy efficiency and saving, the development of new and renewable forms of energy and promoting the interconnection of energy networks, the Article 194 of the Lisbon Treaty leaves the right to determine the conditions for exploiting their energy resources, the choice among different energy sources and the structure of energy supply to its member states.

The second one is the specific type of governance shaping the EU energy policy in the process of permanent negotiation and renegotiation of goals and means, known as the experimentalist governance that should make it more flexible and able to respond and adapt to changing internal and external circumstances (Eberlein and Kerwer 2004; Eberlein 2010). To some extent, this continuous evolvement of the EU policy and regulatory norms is linked to the difficulties of integrating member states' energy markets due to their diverse structures and vested interests (since 2009, the EU member states have been implementing the 3rd energy package setting the framework for the integration of

electricity and natural gas markets in the EU, after the attempts to integrate those national energy markets in 1996 (electricity) and 1998 (natural gas) with the first round of directives and in 2003 with the second one). As noted by some analysts, for half a century in the field of energy market integration 'national leaders and industries have resisted centralisation and even collaboration, instead opting to fend themselves and prioritise national over regional solutions' (Pedersen 2014:1). However, enlargement of the EU in 2004 and 2007 contributed to more attention being given to the issues of energy security and coordination of policies both inside the common market and in relations to external suppliers.

The enlargement contributed to increasing the EU interdependence with the external suppliers of energy resources. The EU factor is important because energy policies of the two regional energy powers that are not members of the EU – Norway and Russia – are also strongly, albeit in different manners, influenced by the EU regulations. Norway as a member of the EEA has been following the EU regulations almost automatically since the entering into force of the EEA agreement in 1994 (Austvik and Claes 2011; UD 2012), while in the case of Russia it is mostly about how the EU regulatory and competition policies may define Russia's room for manoeuvre in its relations with Russia's most important energy market and due to its presence as a dominant supplier in Central and Eastern European countries (Gorevalov 2012; Riley 2013; Yafimava 2013; Goldthau and Sitter 2014).

1. Patterns of asymmetrical energy trade interdependencies and their evolution: 2004–2014

The Baltic Sea region was chosen for a case study for several reasons. First, this is the region where changes in both political and energy sphere have been the deepest in the whole EU. The process of the EU accession introduced new regulatory norms into the energy sector of the acceding countries which were still physically integrated into the former Soviet networks with the legacy of clientelistic culture of doing business and rent-seeking. The 2004 EU enlargement also changed political and energy relations between the EU and Russia by adding to the EU a group of countries that depended heavily on energy supplies from Russia but were at the same time more sceptical towards energy cooperation with Russia, suspecting Russia of having not only economic but also a geopolitical agenda (see Sergunin 2013 for an interesting analysis of the political fraemwork organizing the EU–Russian relations in the BSR, also see Lucas 2014 for an analysis of Russia's geopolitical agenda and its policies). To be sure, the approach towards energy supplies from Russia has differed depending on a particular country, resulting from the interplay of interest groups and political elites, the degree of autonomy of the latter from the former and the prioritization of the security of supply vis-à-vis other policy goals. To some extent this difference has been reflected in different choices of the method and time frame of implementing the 3rd energy package of the EU in each Baltic State (and also other EU members of the BSR) (Dudzińska 2012, 2015).

The second and related point is that this region is made up of various types of actors whose energy interests are partly complementary and partly contradictory (for an interesting collection of studies on regional

and national energy policies in the Baltic Sea region, see Sprūds and Rostoks 2009). There are two major external suppliers of energy to the EU in the region and a group of countries that have to import energy to meet their energy needs (for a rough overview of the key regional energy developments, see Table 1). The interests of producers and importers of energy can be complementary and contradictory at the same time. The producers and exporters of energy are most preoccupied with the security of demand, while importers of energy are mostly interested in the security of supply and in the affordability of energy they have to import. If trade in energy is seen as any other type of international trade, relations between producers and importers result in a mutual interdependence as their energy interaction is beneficial to both parts. Producers can have not only access to markets thirsting for energy supplies, but can also earn substantial amounts of money by supplying energy commodities. Importers can have their energy needs met through this interaction at what should be – due to geographical proximity – a reasonable cost and low transport risk. In other words, the law of comparative advantage should work in this field of trade like in others, provided that open trade relations and a stable legal environment create appropriate conditions for international trade.

Such an economic interdependence could also create a better climate for political cooperation helping both groups of actors deal with contentious political issues in their relations. However, this logic of a positive sum game from trade interdependence holds when both parties are motivated primarily by economic gains from exchange rather than by the use of energy supply to pursue geopolitical goals. Besides, Russia and Norway have different roles in the region. Russia has been traditionally playing a major part in regional energy supply, while Norway has until recently been de facto absent from the region (Godzimirski 2009a). This has recently been changing. Russia's position has been weakened due to the increasing scepticism towards energy

cooperation with Russia, resulting from the perceived manipulation of supply conditions of energy resources from Russia some time before the conflict in Ukraine and search for non-Russian supplies (Peruzzi et al. 2014), while Norway has seen a commercial opportunity and decided to enter the regional gas market and to supply LNG to the newly opened Lithuanian LNG terminal in Klaipeda (LITGAS 2014).

The situation in the sub-region reflects the situation in the whole EU, which depends on energy imports and has to build its energy relations with external suppliers of energy, using the whole spectrum of instruments to project its market and regulatory power and to make suppliers play by the same agreed rules (Goldthau and Sitter 2014). An important instrument in the EU energy policy is the creation of the internal energy market which is expected to help the EU distribute energy more efficiently within its borders and at the same time strengthen the EU international role as an energy player. And here, the BSR plays an important part as one of the developing sub-regional energy markets that are expected eventually to merge into one single European energy market (Palle 2013).

However, and this is the third reason why we analyse the Baltic Sea region, the region's transformation into a sub-regional energy market would require adding new elements to sub-regional energy infrastructure. How these sub-regional issues are addressed and how the solution of the sub-regional problems may help to build a functioning EU single market is an important test of the efficiency of energy governance at the national, sub-regional, and the EU level. Improving the sub-regional energy cooperation is defined by the EU as an important step in the process of building a well-functioning internal energy market, i.e. to help the EU address its energy dilemmas in a more flexible manner and help both the EU and member states cope with both internal and external energy security challenges (Patt et al. 2011; Jong and Groot 2013).

TABLE 1. Key energy developments in the BSR countries, 2004–2012

Country	2004 Energy production mtoe	2012 Energy production mtoe	Energy production change 2004–2012 mtoe	Energy production change 2004–2012 in percent	2004 Net imports mtoe	2012 Net imports mtoe	Net imports change 2004–2012 in mtoe	Net imports change 2004–2012 in percent	2004 TPES mtoe	2012 TPES mtoe	TPES change 2004 –2012 in mtoe	TPES change 2004 –2012 in percent
Denmark	31.01	18.96	-12.05	-38.86	-10.02	-0.66	9.36	-93.41	20.07	17.34	-2.73	-13.60
Estonia	3.55	5.09	1.54	43.38	1.68	1.16	-0.52	-30.95	5.17	5.52	0.35	6.77
Finland	15.89	17.24	1.35	8.50	21.21	15.54	-5.67	-26.73	38.09	33.3	-4.79	-12.58
Germany	136.01	123.38	-12.63	-9.29	215.76	199.56	-16.2	-7.51	348.04	312.53	-35.51	-10.20
Latvia	2.14	2.34	0.2	9.35	3.06	2.69	-0.37	-12.09	4.6	4.42	-0.18	-3.91
Lithuania	5.21	1.56	-3.65	-70.06	4.22	5.91	1.69	40.05	9.16	7.38	-1.78	-19.43
Norway	238.63	198.89	-39.74	-16.65	-210.84	-168.8	42.09	-19.96	27.66	29.19	1.53	5.53
Poland	78.81	71.43	-7.38	-9.36	13.54	30.92	17.38	128.36	91.74	97.85	6.11	6.66
Russia	1158.46	1331.6	173.15	14.95	-511.01	-564.9	-53.93	10.55	641.53	756.59	115.06	17.94
Sweden	35.09	36.18	1.09	3.11	20.31	15.36	-4.95	-24.37	53.94	50.16	-3.78	-7.01

Source: IEA 2006, 2014.

In order to understand what have been the effects of the policies adopted on the sub-regional and the EU level, it is important to compare the situation at the time of the EU enlargement with the current situation.

1.1. Energy developments in the region in 2004–2012

When we look back at the last ten years of energy cooperation in the region, we can identify a number of key developments that have already had an important impact on this cooperation and on energy security in the region. These were:

- the EU accession and the European Commission's initiatives to further integrate energy markets resulting in a changing institutional and regulatory framework, and especially the launching by the EU in 2009 of the Baltic Energy Market Interconnection Plan and embarking on several infrastructural projects supported by the EU that are to improve the energy security of the region;
- construction of the Nord Stream pipeline that was a regional game changer on the gas market;
- development of the Baltic Pipeline Systems (BPS) 1 and 2 by Russia in response to transit challenges as perceived by Moscow;
- construction of several LNG terminals in the region that are to help diversify gas supplies and make the region less dependent on supplies from the regional dominant supplier;
- de- and re-nuclearization of energy production in the region, symbolized by a renewed Russian, Finnish, Swedish, and Polish focus on nuclear energy, Germany's decision on the closure of the country's nuclear power plants and de-nuclearization of Lithuania with the closure of Ignalina and the current uncertainty regarding the re-nuclearization of the country's energy sector with the planned construction of the Visaginas

Nuclear Power Plant which was supposed to supply energy also to other countries of the region.

From the point of view of policymakers who have to design and implement policies that are to address energy-security-related issues, several factors play a major part. Firstly, it is important to understand what the main energy-security-related challenge is, whether the energy policy is to address the question of availability, affordability, efficiency or sustainability of energy. Depending on what is defined as the main challenge, certain policy measures have to be taken to address challenges and mitigate risks. Table 1 – with data on energy from IEA (IEA 2006, 2014) – presents several aspects of regional energy development between 2004 and 2012 and the potential impact of those trends on the energy security of the countries in the region. This set of data will be used to analyse changes in the pattern of regional energy relations in this part of the study.

TABLE 2. The BSR countries – shares in energy production and total primary energy supply (TPES) in 2012

Country	Share in BSR production in %	Share in BSR TPES in %	BSR production / TPES gap
Denmark	1.05	1.32	-0.27
Estonia	0.28	0.42	-0.14
Finland	0.95	2.53	-1.58
Germany	6.83	23.78	-16.95
Latvia	0.13	0.34	-0.21
Lithuania	0.09	0.56	-0.48
Norway	11.01	2.22	8.79
Poland	3.95	7.45	-3.49
Russia	73.70	57.57	16.14
Sweden	2.00	3.82	-1.81
Total in mtoe	**1806.68**	**1314.28**	**492.4**

Source: compiled by authors on the basis of IEA data.

The data present developments in all countries of the region, but it is important to understand that at least three of the countries in question – Russia, Germany, and Norway – have strong energy connections also outside of that region, which is also partly true in the case of Poland. For the purpose of this study focusing on national and sub-regional policies and developments, we have chosen to assess data covering entire countries of the BSR, which may pose some interpretative challenges.

Those challenges and questions will be signalled in the text, but Table 2 illustrates this interpretative challenge very well by showing data on the respective countries' shares in energy production and total primary energy supply (TPES) on the regional level as well as the gap between production and consumption (TPES). The figures show the shares of countries in regional production (Production share) and consumption of energy (TPES share) obtained by dividing figures for each country with totals for the region; the last column (Production / TPES gap) shows which countries produce less energy than they consume and which ones have production surplus that can be exported either to the local or to the global energy market. The last column gives a rough hint on which countries in the region are energy import-dependent and which ones are energy exporters. A quick glance at the table reveals that only two countries produce more than 10 per cent of energy produced in the region each (Norway and Russia), that the same two countries are the sole ones in the region to produce more energy than they consume, and finally that one country – Germany – has the most pressing need to import huge volumes of energy to meet its energy needs.

In addition, it is important to understand that the countries may face various energy security challenges due to their dependence on various energy sources as exemplified in Table 3 showing the size of their domestic energy markets and shares of various energy sources in supply.

TABLE 3. Energy mixes of BSR countries – total gross inland consumption (GIC) and shares of particular types of energy sources (%) in 2012

	GIC in mtoe	Oil	Solid fossil fuels	Natural gas	Nuclear electricity	Renewables	Electricity net imports	Others
Denmark	18.1	39.23	13.81	19.34	0	23.20	2.21	2.21
Estonia	6.1	18.03	62.30	8.20	0	14.75	-3.28	0
Finland	34.1	26.39	13.49	8.80	17.30	29.03	4.40	0.59
Germany	319.5	33.90	25.16	21.85	8.04	10.36	-0.56	1.25
Latvia	4.5	31.11	2.22	26.67	0	37.78	2.22	2.22
Lithuania	7.1	35.21	2.82	38.03	0	16.90	8.45	0
Norway	29.19	37.9	2.8	13.5	0	40.2	0	5.6
Poland	98	25.31	51.63	13.88	0	8.78	-0.20	0.61
Russia	757	22.3	17.6	51	6.2	2	0	1
Sweden	51.6	24.61	4.26	1.94	31.98	35.85	-3.29	0.97

Source: compiled by authors on the basis of the European Commission and IEA data

1.2. Energy production trends in 2004–2012

The production of energy resources in the countries of the region increased between 2004 and 2012 by 5.99 per cent (or by 101.88 mtoe, from 1704.8 to 1806.68 mtoe), but most of this increase was due to the increased production of energy in Russia. Russia noted a 14.95 per cent (or 173.15 mtoe) increase in its energy production and was one of the five countries of the region that produced in 2012 more energy than in 2004 – Estonia increased its production the most (+43.38 per cent) and was followed by Russia (+ 14.95 per cent), Latvia (+ 9.35 per cent), Finland (+8.50 per cent), and by Sweden (+ 3.11 per cent). In the same period, energy production was falling in five countries of the region. The fall was deepest in Lithuania (–70.06 per cent), which was followed by Denmark (– 38.86 per cent), Norway (– 16.65 per cent), Poland (–9.36 per cent), and Germany (– 9.29 per cent).

Energy consumption, or how the regional TPES has changed

The TPES is the sum of all energy resources, such as coal, oil, gas, nuclear, and renewables used within the borders of the country, and is equivalent to the total primary energy demand, including domestic production and imports and excluding exports and international marine and aviation bunkers. In brief, TPES is the amount of energy needed within the borders of the country to make it meet its energy needs. Between 2004 and 2012, TPES in the BSR increased by 5.99 per cent (74.28 mtoe), from 1240 to 1314.28 mtoe. This increase is mostly caused by a substantial increase in only one country – Russia, where TPES rose by almost 18 per cent, or by more than 115 mtoe. In the rest of the countries, TPES increase was much smaller, or TPES has been even falling. The increase was noted in Norway (5.53 per cent), in Poland (6.66), and in Estonia (6.77), while 6 countries noted in 2012 a lower TPES than in 2004 – Lithuania (–19.43 per cent), Denmark (–13.60 per cent), Finland (–12.58 per cent), Germany (–10.20 per cent), Sweden (–7.01 per cent), and Latvia (–3.91 per cent).

Import and export of energy resources 2004–2012 and import dependence

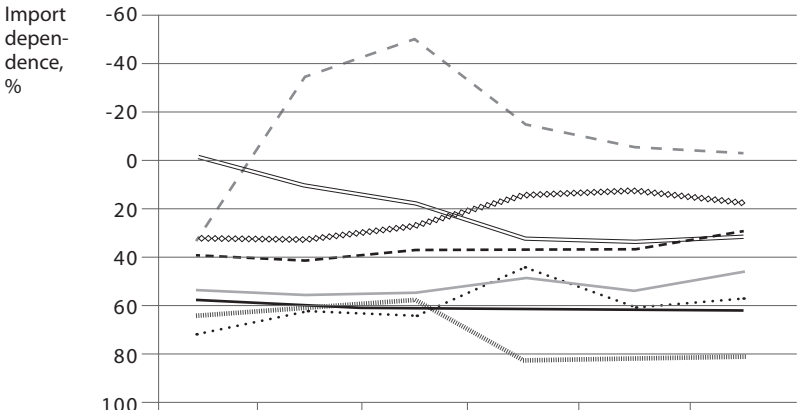
In 2004, there were three countries in the region exporting energy and seven importers of energy. In 2004, Denmark net export of energy reached 10.02 mtoe, Norway had an export surplus of 210.84 mtoe, and Russia's energy export surplus reached an impressive 511 mtoe. In the same year Germany imported almost 216 mtoe, Finland 21.21 mtoe, Sweden 20.31 mtoe, Poland 13.54 mtoe, Lithuania 4.22 mtoe, Latvia 3.06 mtoe, and Estonia 1.68 mtoe. In 2012, the situation did not change – there were still three net exporters of energy in the region and seven countries that had to import energy to meet their energy needs.

The export surplus rose substantially only in Russia – by 10.55 per cent, reaching the impressive 565 mtoe, and was falling in both Denmark which noted a drastic 93.41 per cent fall in this period (from 10.02 mtoe in 2004 to a modest 0.66 mtoe export surplus in 2012), and in Norway which reduced the volume of its energy export by 42.09 mtoe (or by almost 20 per cent). Of the seven remaining countries in the region, Poland and Lithuania had to increase their net import of energy substantially – by 128.36 per cent in the case of Poland (from 13.54 in 2004 to 30.92 in 2012) and by 40 per cent in the case of Lithuania (from 4.22 mtoe in 2004 to 5.91 mtoe in 2012).

Five other countries in the region managed to cut their energy imports – Germany by 7.51 per cent (or 16.2 mtoe), Latvia by 12 per cent (or 0.37 mtoe), Sweden by 24.37 per cent (or almost 5 mtoe), Finland by 26.73 per cent (or by 5.7 mtoe), Estonia by 30.95 per cent (or by 0.5 mtoe).

Figure 1 presents official EU data (European Commission 2015b) on the evolution of energy import dependence of the BSR countries. The record is mixed. In 2005, Denmark exported almost 50 per cent more energy than it used domestically, while Poland was the least energy import-dependent country among the seven regional energy importers. In the case of Poland, the country's energy import dependence rate reached 17.2 per cent, Estonia's 26.1 per cent, Sweden's 36.8 per cent, while all the rest had the import dependence rate higher than 50 per cent: Finland 54.2 per cent, Lithuania 56.8 per cent, Germany 60.4 per cent, and Latvia 63.9 per cent. In 2012, the situation changed but not significantly. Denmark is about to cross the zero line and return to its historical role as a net energy importer, Poland was surpassed by both Estonia and Sweden which reduced their dependence rates to 17.1 and 28.7 per cent, respectively, and was demoted to the third place with its import dependence rate increasing to 30.7 per cent. Finland managed to cut its dependence rate by almost 10 per cent points, (to 45.4 per

cent), Latvia to 56.4 per cent, while Germany, its energiewende policy notwithstanding saw its energy import dependence rate to rise to 61.1, and Lithuania saw the most dramatic increase to 80.3 per cent. In the case of Denmark, Germany, and Poland, the negative developments are caused mostly by the falling domestic energy production from fossil fuels that cannot be substituted by the increased production from other domestically available resources, while in the case of Lithuania the increase was caused by the closure of the Ignalina nuclear power plant (NPP) which in 2005 supplied more than 30 per cent of the country's energy and was closed down in the end of 2009 due to the commitment written in the EU accession agreement.



	1995	2000	2005	2010	2011	2012
Denmark	33.4	-35.1	-49.9	-16.1	-6.1	-3.4
Estonia	32.4	32.2	26.1	13.7	12.1	17.1
Finland	53.5	55.1	54.2	48	53.4	45.4
Germany	56.8	59.4	60.4	60	61.5	61.1
Latvia	70.4	61	63.9	44.3	59.9	56.4
Lithuania	63.1	59.4	56.8	81.8	81.6	80.3
Poland	-1.2	9.8	17.2	31.2	33.4	30.7
Sweden	38.9	40.7	36.8	36.6	36.2	28.7

FIGURE 1. Evolution of energy import dependence in energy importing BSR countries 1995–2012

Source: European Commission (2015).

Sustainability, or dealing with the decarbonisation challenge

In order to measure how the countries in the region coped with the challenge of sustainability, we decided to measure developments in their CO_2 footprint. Table 4 presents IEA data on the CO_2 footprint of their economies in 2004 and 2012 and the reduction / increase in CO_2 emissions between 2004 and 2012. Those data are used to assess how they managed to deal with the need to decarbonize their economy, an indicator that is used to measure their record in the field of energy sustainability.

TABLE 4. Developments in national CO_2 footprint

	2004 CO_2 emissions MT	2012 CO_2 emissions MT	2004–2012 change in CO_2 emissions in MT	2004–2012 change in CO_2 emissions in per cent
Denmark	50.92	37.13	-13.79	-27.08%
Estonia	16.58	16.35	-0.23	-1.39%
Finland	68.9	49.41	-19.49	-28.29%
Germany	848.6	755.27	-93.33	-11.00%
Latvia	7.23	7.01	-0.22	-3.04%
Lithuania	12.68	13.33	0.65	5.13%
Norway	36.31	36.19	-0.12	-0.33%
Poland	296.08	293.77	-2.31	-0.78%
Russia	1528.78	1659.03	130.25	8.52%
Sweden	52.16	40.42	-11.74	-22.51%

Source: compiled by authors on the basis of IEA data.

1.3. Assessing developments of energy security 2004–2012

Table 5 shows what could be understood as the regional ranking of energy security performance of BSR countries in the period between 2004 and 2012. To present those data, we use here four categories proposed earlier, but, contrary to this study (Brown et al. 2014) and for the reason of clarity, we propose a simpler method of assessment and not a combined and complex national energy security index. Based on IEA data from 2004 and 2012, we have examined which countries performed better and worse in four categories. Their performance is measured by comparing the situation in 2004 with the situation in 2012 and by examining how big in per cent was either the positive or negative change in respective countries in four specific categories.

TABLE 5. The improvement or worsening of the four indicators of energy security in the BSR countries from 2004 to 2012

Rank	Availability (production + or –)	Affordability (net import dependence – or +)	Efficiency (TPES – or +)	Stewardship (CO_2 reduction)
1.	*Estonia*	*Estonia*	*Lithuania*	*Finland*
2.	*Russia*	*Finland*	*Denmark*	*Denmark*
3.	*Latvia*	*Sweden*	*Finland*	*Sweden*
4.	*Finland*	*Latvia*	*Germany*	*Germany*
5.	*Sweden*	*Germany*	*Sweden*	***Latvia***
6.	**Germany**	**Lithuania**	*Latvia*	***Estonia***
7.	**Poland**	**Poland**	**Norway**	***Poland***
8.	**Norway**		**Poland**	***Norway***
9.	**Denmark**		**Estonia**	**Lithuania**
10.	**Lithuania**		**Russia**	**Russia**

Source: compiled by authors.

The formula we used to calculate those parameters is as follows:

$$\begin{aligned}\text{Category}_x &= (\text{Performance}_{2012} - \text{Performance}_{2004}) = \\ &= \text{Sum}_{2012-2004} \rightarrow (\text{Sum}_{2012-2004} / \text{Performance}_{2004}) \times 100 = \\ &= \text{Rate of Success or Failure in \%}\end{aligned}$$

When it comes to *availability,* we measured the level of domestic energy production – we assume that the countries that increased their domestic production of energy (presented in *Italics*) have improved their energy security in a given period while those whose domestic energy production decreased (in bold) have made themselves more exposed to external influences. When it comes to *affordability,* we measured how the countries in question have managed to decrease their net import dependence, assuming that the need to pay for energy that has to be imported makes supplies less affordable, especially having in mind the relatively high energy prices in 2004 and 2012 and the political risk bound with the fact that most of the energy on the regional level has to be imported from Russia which is often viewed as an actor that uses its energy resources for political purposes (Hill 2004; Łoskot-Strachota 2009; Götz 2012, 2014). The use by Russia of differentiated gas prices various actors are charged depending on their place in market chains and political preferences in Moscow illustrates the use of energy resources for political purposes and has also an effect on the affordability of energy available on the regional market.

To be sure, we must stress that import substitution by domestic production might have contradictory effects on different dimensions on energy security (for example, improving availability but reducing affordability or efficiency), since domestic production might be unstable and/or comparatively more expensive (i.e. in the case of some renewable energy or other domestic sources which might need to be balanced by other sources of power or provide with more expensive energy resources compared to imported ones). Besides, we should distinguish

between short-term and long-term trends of different dimensions of energy security, especially when we assess the conditions of trade from the dominant supplier possessing the asymmetrical bargaining power. Therefore, we maintain that the diversity of different sources of supply and the ease of the entry of new market participants able to employ the most recent technologies, as it will be discussed in the next part of the study, is particularly important for improving the energy security of each country.

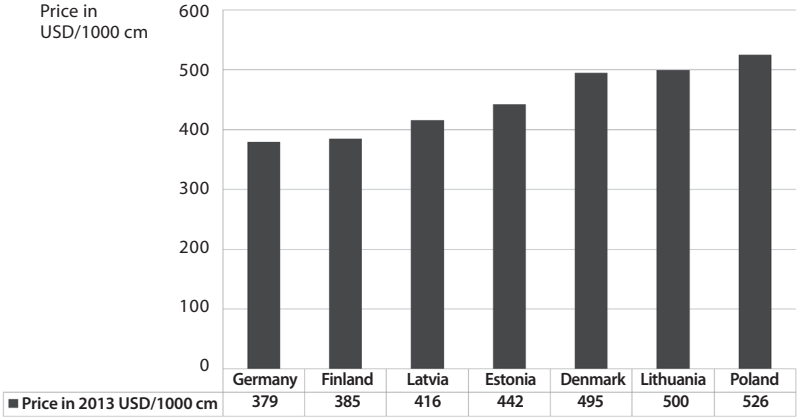


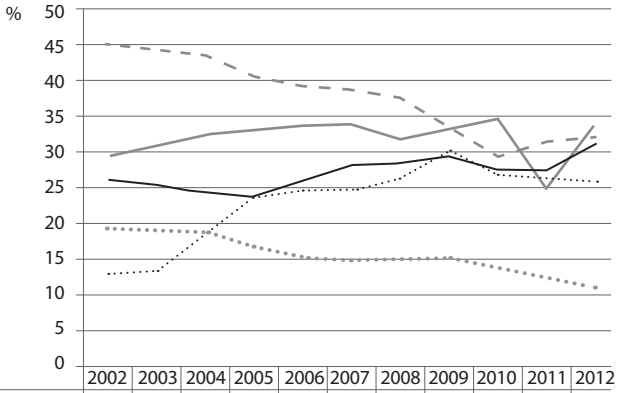
FIGURE 2. Price paid for Russian gas by BSR countries in 2013
Source: RFE/RL and Li Luo 2015.

The countries that have managed to reduce their net energy import dependence are listed in italics, while those that became more dependent on energy imports are listed in bold. As to the *efficiency* parameter of energy security, we assume that the countries that have managed to develop while reducing their overall energy use (TEPS) did better (those are in Italics) than those ones that had to increase their energy consumption (bold). Finally, we also assess the question of *stewardship or sustainability* by looking at the developments in the

national CO_2 footprint. Here, again, those countries that have managed to reduce their CO_2 footprint most are listed on the top of the list (in *italics* those that reduced their CO_2 emissions by more than 10 per cent, and in italics bold those which managed to reduce their CO_2 footprint by less than 10 per cent), and those whose performance in that specific field was worse are to be found further down on the list (in bold are those which increased their CO_2 footprint in that period).

Who depends on whom and what does it mean?

Russia and Norway are the two most important regional and sub-regional suppliers of energy. Figure 3 shows Russia's and Norway's importance as suppliers of energy to the EU, while Table 6 presents data on their role as energy suppliers on the sub-regional Baltic market.



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Russia oil import share	29.5	31.2	32.5	32.9	33.8	33.7	31.8	33.5	34.7	24.8	33.7
Russia gas import share	45.2	44.1	43.6	40.7	39.3	38.7	37.6	33	29.5	31.6	32
Russia solid fuels import share	13.1	13.3	18.2	23.7	24.8	24.8	26.1	30	26.9	26.2	25.9
Norway oil import share	19.3	19.1	18.7	16.8	15.4	14.9	15	15.1	13.7	12.5	11.1
Norway gas import share	26.1	25.5	24.3	23.8	25.9	28.1	28.4	29.4	27.5	27.4	31.1

FIGURE 3. Russia's and Norway's shares in energy imports to the EU
Source: Eurostat.

Table 6 presents detailed data on the importance of energy supplies (combined oil, gas, and solid fuels) from Russia and Norway in national energy balances of the BSR countries expressed as a share of Russia's and Norway's energy exports in the respective countries' gross inland consumption (GIC) and the importance of national BSR energy markets for Russia and Norway, expressed here as the share of respective markets in the total energy export from Russia and Norway to the EU. All data presented here are based on the Eurostat from 2011, and the countries are ranked in descending order based on their energy sector's dependence on supplies coming from Russia as viewed in the column 4 of the table.

Data presented in this table require some additional interpretation and explanation. In the case of Lithuania, the picture of Lithuania's factual energy dependence on Russia is distorted due to the fact that Lithuania imports huge volumes of Russian oil that is processed in the country and then exported. These data may also help to explain the almost symbiotic – at least until 2014 events in Ukraine – energy relationship between Germany and Russia. Russian energy supplies to Germany represent almost 25 per cent of the German GIC and almost 22 per cent of Russian export of energy going to the EU, making Germany the most important energy partner of Russia, not only in the BSR but in the whole EU. Poland, receiving more than 40 mtoe of Russian energy supplies that represent almost 40 per cent of the country's GIC is undoubtedly the second most important BSR energy customer for Russia, buying almost 12 per cent of all Russian supplies of energy going to the EU. When it comes to Norway, Germany again is the most important regional energy partner with an almost 21 per cent share in Norway's energy exports to the EU, and Norwegian supplies representing almost 10 per cent of German GIC.

TABLE 6. BSR countries' dependence on imports of energy from Russia and Norway and Russia and Norway's dependence on access to national BSR markets in 2011

Country	GIC in mtoe	Energy import from Russia – oil, gas and coal – in mtoe	Import from Russia/GIC in per cent	Share of gas import from Russia in gas import in per cent	Share of Russian export of energy to the EU going to this country in per cent	Energy import from Norway – oil, gas and coal – in mtoe	Import from Norway/GIC in per cent	Share of Norwegian export of energy to the EU going to this country in per cent
Lithuania	7	12.21	174.41	100	3.61	0	-	-
Finland	35.48	18.77	52.89	100	5.55	1.25	3.5	0.86
Poland	101.22	40.38	39.89	85	11.94	1.31	1.29	0.91
Latvia	4.38	1.68	38.45	100	0.50	0	-	-
Germany	317.12	74.39	23.46	36	21.99	30.30	9.55	20.85
Sweden	49.71	10.29	20.70	0	3.04	4.2	8.44	2.92
Denmark	18.75	2.12	11.33	0	0.63	3.27	17.44	2.25
Estonia	6.19	0.63	10.13	100	0.19	0	-	-

Source: Eurostat.

Energy importing countries in the BSR received 160.47 mtoe of energy exports coming from Russia and 40.33 mtoe of energy coming from Norway. In 2011, energy exports to BSR represented 47.45 per cent of all Russian exports of energy to the EU and only 27.79 per cent of Norwegian exports going to the EU, which means that the BSR is a far more important energy customer for Russia than for Norway.

From the energy security point of view, what is important is not only to what extent energy is available on the domestic market, but also to what extent external energy suppliers could be considered reliable partners. This is particularly important when certain energy resources

are supplied from a single source or the level of diversification of supplies is very limited. Interest in energy trade with external suppliers depends, however, not only on a country's energy needs and what energy resources can be supplied by the external suppliers, but also on the attitudes towards energy cooperation – and other forms of political and economic cooperation with the countries in question. This, in turn, is a function of how decision-makers perceive these potential external suppliers of energy and whether they see energy cooperation as beneficial or risky in not only economic but also in strategic and security terms. The way other actors are perceived can be best understood by examining the impact of identity on international cooperation, including energy cooperation. Godzimirski (2009b) studied the impact of identity on energy policymaking in various geographical and institutional contexts, including the Baltic Sea region where he examined how the debate on the construction of the Nord Stream pipeline was influenced by the identities of actors who were supposed to take crucial decisions. His main finding was that neither energy relations nor identities are stable, and that there is a link between these two. Energy relations are influenced by many factors, including the balance between supply and demand and the availability of resources in specific geographical settings, while identity is shaped through a constant process of contestation and in relation to other also changing identities.

Having in mind that Russia is the most important external energy supplier to both the BSR and to the EU as a whole, and that Norway is the sole external supplier which can for the time being compete with Russia on both the regional and the EU energy market, it would be interesting to see what attitudes towards energy cooperation with those two key suppliers prevail in Brussels and in member countries.

In 2007, the European Council of Foreign Relations (ECFR) conducted a comprehensive study on attitudes towards cooperation with

Russia, revealing amongst others the impact of various historically shaped identities on cooperation between the EU member states and Russia (Leonard and Popescu 2007). Although the analysis was on foreign policies of the EU member states towards Russia, energy cooperation has formed a significant part of those policies and has usually been characterized by asymmetrical interdependence. The EU member states were divided into several categories, and countries from the BSR belonged to the following groups: Germany was classified as Russia's strategic partner; Finland was labelled friendly pragmatist; Denmark, Estonia, Latvia, and Sweden belonged to the category of frosty pragmatists, while Lithuania and Poland were classified as new cold warriors, being the most sceptical towards energy cooperation with Russia.

However, events in Ukraine in 2014 and Russia's role in the conflict have most probably resulted in a substantial redrawing of this attitudes' map, as witnessed by the consensus of the EU member states on the adoption of several rounds of economic sanctions against Russia (Gaddy and Ickes 2014; Micco 2014; Ćwiek-Karpowicz and Secrieru 2015), by the EU's renewed interest in energy security (European Commission 2014b, 2014a) and in improvement of the EU internal and external energy governance symbolized by the Energy Union project (Egenhofer et al. 2014; Gawlikowska-Fyk et al. 2014). What can be especially challenging for Russia in the long-term perspective is the adoption of a new, more sceptical approach towards energy cooperation with Russia by Russia's key European energy partner Germany (Westphal 2014).

It should be noted that already in late 2000s, after several cases of what was perceived as political manipulation of oil and natural gas supplies from Russia by its authorities, the Baltic States accelerated the implementation of sub-regional energy infrastructure projects aimed at reducing the asymmetry of interdependence and potential for influence by Russia. These coordinatory measures and the role of the EU and other countries of the BSR are dicussed in the second part of this study.

It is much harder to find any reliable data on attitudes towards energy cooperation with Norway but we can guess that due to a number of factors ranging from fundamental institutional characteristics like adherence to the principle of the rule of law in Norway, and political risk in Russia to uncertainty linked to recent Russian actions in Ukraine, energy cooperation with Norway is viewed as much less challenging than energy cooperation with Russia. As noted recently by Godzimirski (2014a), Norway has a number of competitive advantages compared with Russia. It shares the norms and values of liberal democracy with all members of the European Union and is *de facto* a European insider through its membership in the EEA; it is a predictable democracy that does not politicize its energy supplies; supplies of energy from Norway to Europe do not run the risk of disruption by transit countries, and Norway shares a strategic vision and concerns with all its European energy customers who are members of either the EU or NATO, or both. All those strategic factors make Norway a much more attractive energy partner than Russia.

Although Norway, due to limited resources and infrastructural constrains, will not be able to replace Russia as an energy supplier to Europe, the recent set of data released by Russian and Norwegian authorities shows that Norway seems to be winning the competition for market shares in the EU – in the last quarter of 2014 Norway exported 29.5 bcm of gas to the EU, while Russian gas exports were much lower (19.8 bcm), and this trend continued also in the first quarter of 2015 when Norway exported 29.2 bcm of gas to the EU, while Russian gas exports increased only slightly to 20.29 bcm. According to the same sources, in 2014 Russia had a 42 per cent share of all external gas supplies to the EU, while Norway's share increased between 2013 and 2014 from 34 to 38 per cent (NTB 2015).

1.4. Electricity trade

Table 7 presents an overview over electricity trade in the BSR in 2013. Five BSR countries – Latvia, Estonia, Finland, Sweden, and Denmark – received all their electricity imports from other BSR countries, while the share of BSR countries was much lower in the import of electricity in Norway (95 per cent), Russia (79 per cent), Poland (83 per cent), and Lithuania (71 per cent), and rather marginal in Germany (13 per cent). Russia's share in electricity imports to several countries – Lithuania, Estonia, Latvia, and Finland – was between 26 and 36 per cent of all electricity import, while Norway's imports were completely marginal. All electricity exports from Latvia, Estonia, Finland, and Sweden went to other BSR countries. In the case of Denmark, 97 per cent of electricity export went to other BSR countries, and Norway exported 71 per cent of electricity to other BSR countries. The share of exports from Russia to BSR countries was much lower (58 per cent), and even lower in countries like Lithuania (21 per cent), Germany (17 per cent), and Poland (11 per cent). It can be expected, as it is discussed below, that the realization of several infrastructural projects in the region, such as the Baltic Energy Ring, will result in a closer integration of the regional electricity market and in its stronger integration with the rest of the European grid, thus improving the availability and price competitiveness of electricity traded among Nordic–Baltic countries.

The further integration of electricity markets in the EU is, in addition to the development of internal gas market, one of the cornerstones of the EU's energy policy. As in other areas of energy cooperation, the situation in the electricity sector on the regional level is at the same time challenging and promising. Challenging, because there are three different synchronous areas in this region: the Nordic area (Norway, Sweden, Finland, and Eastern Denmark), the continental European area (Germany, Poland and Western Denmark, and more than 20 other European countries), and the Baltic synchronous area, which covers

the three Baltic countries and is synchronous with the Russian power system UPS. Due to this technological diversity, power exchange on the sub-regional and regional level can only take place through HVDC links (EA Energy Analyses 2014: 18). This makes linking national electricity grids a more challenging task in terms of technology and costs, but those obstacles can be overcome if there is political motivation and interest in making it happen. In addition, the increased level of cooperation is promising, because there is a growing need for and interest in the further integration of the electric grid both at the sub-regional and EU levels, caused by not only political but also by economic and technological factors.

In political terms, it is the EU's interest in a deeper integration of the energy market, which is the main driving force, but also the interest of the countries that were originally not connected with the rest of the EU electricity grid has contributed to development of new interconnectors. In economic and technological terms, this process has been driven by the realization of the fact that the diverse electricity systems of the countries in question could benefit from the further integration and commercially motivated possibilities to choose different suppliers depending on the season of a year and day/night periods. Since electricity is produced in the region from various sources (gas, biomass, nuclear, wind, hydro, coal, etc.), there is an expectation that the region should be stronger interconnected to provide additional flexibility, and that this sub-regional integration could be an important stepping stone in building an integrated electricity market in the EU, which in turn should help the EU to cope with a number of broader energy-related issues.

Cooperation in the field of electricity cannot therefore be separated from cooperation in energy in broader terms. As mentioned earlier, the EU energy policy in general aims to address three key concerns: the impact of energy use on the *competitiveness* of the EU economy,

TABLE 7. Electricity trade in the BSR in 2013

From ↓ to → in GWh	Germany	Poland	Lithuania	Latvia	Estonia	Finland	Sweden	Denmark	Norway	Russia	Totals	Total export from	Share of export to BSR
Germany		5451					1048	5772			12271	72256	17
Poland	542						763				1305	12323	11
Lithuania				89						146	235	1128	21
Latvia			3626		23					1	3650	3650	100
Estonia				3535		476				1971	5982	5982	100
Finland					1534		736		113	3	2386	2328	102
Sweden	1077	1016				12927		3134	6544		24698	24698	100
Denmark	3233						5093		2558		10884	11172	97
Norway						46	7514	2558			10118	14289	71
Russia			2112	1382	879	4644			137		9154	15700	58
Totals	4852	6467	5738	5006	2436	18093	15154	11464	9352	2121	80683		
Total imports country	38460	7801	8073	5006	2436	18093	15154	11464	9887	2700	119074		
Share of imports from BSR	13	83	71	100	100	100	100	100	95	79	840		
Share of imports from Russia	0	0	26	28	36	26	0	0	1				

Source: Data on electricity flows from https://www.entsoe.eu/Documents/Publications/ENTSO-E%20general%20publications/2013_ENTSO-E_Statistical_Factsheet_Updated_19_May_2014_.pdf. Data on export and import from Russia are based on CIA World Factbook for 2013.

the question of the *sustainability* of energy production and use, and the question of *security of supply.* In order to address those three challenges, the EU and national governments have embarked on a more comprehensive approach to energy-related issues. On the EU level, this may be symbolized by the launching of the Energy Union project that is to make energy policy more efficient and help the EU deal with several energy security-related challenges (Egenhofer et al. 2014; European Commission 2015a) and by an increased focus on energy in the new European Commission led by President Jean-Claude Juncker and the appointment of Maroš Šefčovič as a new Vice-President for Energy Union, responsible for a greater coordination of energy-related matters. On the sub-regional and national levels, with the closing of the second reactor of the Ignalina NPP in Lithuania, which, as illustrated by the data above, significantly worsened the energy security situation in the country, and the increasing perception of the risk to the security of supply from Russia, efforts to implement sub-regional and national projects intensified. After long delays with infrastructure projects and failures to coordinate energy policies among the three Baltic States, Lithuania since 2009 has accelerated its work on diversifying the sources of supply – constructing two electricity interconnectors with Sweden and with Poland (SWEDLIT to become operational at the end of 2015 and LITPOL in 2016) and opening an LNG terminal in the end of 2014. Further work has been undertaken in order to connect the Nordic and the Baltic electricity exchanges and to integrate the natural gas market within the Baltics and also between them and Poland.

The successful completion of all these energy-related plans will, indeed, change the pattern of energy interdependencies on the sub-regional and regional levels. Such a development is not necessarily welcomed by traditional regional energy suppliers who see their dominant position challenged by the development of a new energy infrastructure and energy supplies coming from other producers.

Recent reports about the suspicious activity of the Russian Baltic Fleet in the area where the work on the SWEDLIT interconnector is conducted shows how energy and security policy are interlinked on both sub-regional and regional plans (Higgins 2015). Those – and other – policy-related efforts aiming at improving energy security on the sub-regional level are discussed thoroughly in the second part of the study.

2. Policy coordination and initiatives to address interdependencies in trade of energy resources

In this part, we discuss and assess the main initiatives and instruments of regional (EU) and sub-regional (BEMIP, Nordic countries, Baltic States) coordination which have been used to manage interdependencies of trade in energy resources. The main assumption behind this analysis is that market integration among countries of the BSR through the removal of regulatory and physical barriers to trade in energy resources (i.e. natural gas, electricity) contributes to enhancing energy security by increasing the availability, affordability, efficiency, and sustainability of energy supply.

The emphasis here is on the initiatives which remove barriers to trade between neighbouring countries of the sub-region either by using the regulatory rules, institutions and resources provided by the EU or the best practice examples of other countries. Since the three Baltic states that have until recently formed an 'energy island' within the EU – Lithuania, Latvia and Estonia – are confronted with most serious energy security related problems and at the same time have experienced huge problems with the coordination of their energy policy related efforts, most of this analysis will deal with how these three member states have been coping with their energy governance challenges on the regional and sub-regional levels and how their energy security has been influenced by actions of other actors operating in the region.

2.1. The EU level initiatives

It should be noted that, although the process of European integration originated from two communities dealing with energy issues – the European Coal and Steel Community and the European Atomic Energy Community, initially the notion of the common market did not include the energy sector. Energy, similarly to telecommunications, was considered to be a specific sector where large national state-owned monopolies provided services for regulated prices. As noted by some authors, 'European energy politics has traditionally been controlled by member states. National energy policies, and notably those related to "energy security", have long escaped the decades-long process of expanding influence by Brussels. In a way, initially supranational powers were "repatriated" – a quintessential case of "spill-back" (rather than "spill-over") effects' (Dreyer and Stang 2014: 11). Although the situation started changing in 1980s and 1990s with initiatives to privatise parts of the energy sector activities and open them up for competition, the progress of removing barriers to trade in energy resources and provision of services in other EU member states has been very slow and differed depending on particular member states. For example, Great Britain and Nordic countries were among the leaders in introducing competition among producers and traders of electricity and choice for electricity consumers.

Meanwhile, the energy market in the EU remained fragmented despite several attempts to remove regulatory barriers to trade and open up the production and transmission activities to competition. The debates regarding the 3rd EU energy package, aimed at liberalizing the electricity and natural gas market in the EU in the second half of the 2000s, showed the remaining differences of national positions of the EU member states which led to a compromise allowing for several different regulatory options. Importantly, Germany and France were among the EU member states, which have been cautious towards

the initial proposal of the European Commission aiming for the unbundling of vertically integrated monopolies in the energy sector. Those countries were driven by the motive to maintain the industrial structure which existed at the time and protect their national companies from potential competition. It has been argued in the studies of the European integration that new initiatives of the EU-wide market integration have been adopted only when countries such as Germany and France supported them (Moravcsik 1998). Importantly, Germany has been criticised by analysts for its tendency 'to go-it-alone and resist the pan-European and regional cooperation' in adopting decisions in the energy policy on a number of issues ranging from prioritising particular sources of energy to concluding agreements with external suppliers such as Russia (Pedersen 2014:14).

Although it is beyond the scope of this study to provide a detailed analysis of the European integration process in the energy sector, it can be observed that due to the characteristics of the energy sector such as large investments required into the new projects, the long-term nature of the projects and the dominant and often protected from competition interest groups, bargains among the EU member states have been driven by the efforts to minimise the adjustment of national regulatory norms both during the process of drafting the common EU rules and during the process of their implementation. The weakness of the potential consumers of energy allowed established producers and traders (often the same companies) of energy to exert influence on their countries' national positions in negotiations within the EU institutions. Moreover, political preferences of particular countries' elites and population with regard to favouring domestic companies or particular sources of energy in the national mix further complicated the integration of the EU energy markets and opening them to competition.

In January 2004, the European Commission made publically available a 'Study on Energy Supply Security and Geopolitics' prepared

for the DGTREN by the Clingendael Institute for International Relations. The study was conducted in the context of the forthcoming biggest EU enlargement. It maintained that '[…] dependency on the imported energies will increase substantially in the coming decades […] and the uninterrupted flow of energy will mainly depend on the political and economic stability of the producer regions', […] 'energy relations will become increasingly politicised' (Clingendael 2004: 15–16). It also concluded that 'considering the external energy dependency of the EU and given the internal market, it may be that the EU has no other alternative but to develop a coherent energy security policy' (ibid.). The European Council in the 2005 Hampton Court summit decided to develop the EU Energy Policy Guidelines, and in March 2006 the European Council approved the 'European Energy Policy'.

The enlargement of the EU in 2004 and 2007 contributed to prioritizing energy security on the EU agenda, leading to a renewal of efforts of the EU institutions to proceed with the creation of the common energy market inside the EU and a more coordinated position of the EU member states vis-à-vis external suppliers. The growing importance of energy security was reflected in the adoption of the Article 194 of the Lisbon Treaty, which set out the objectives of the EU energy policy and the division of competences between the EU and its member states. A couple of years later, after the adoption of the compromise text of the 3rd energy package and the Lisbon Treaty coming into force, the European Council in February 2011 declared that 'the EU needs a fully functioning, interconnected and integrated internal energy market' (European Council 2011). It also set the end of 2014 as the deadline when conditions should be created in the EU for the electricity and natural gas 'to flow freely' (ibid.).

As a result of the EU enlargement and an increase in inter-dependencies with such external suppliers as Russia, the external energy policy dimension became politically more salient. The external

dimension of the EU energy policy was discussed in a number of documents such as the Strategy 'Energy 2020', which in addition to setting out the goals of reducing greenhouse gas emissions by 20 per cent, increasing the share of renewables by 20 per cent and achieving energy savings by 20 per cent, discussed five priorities: (1) energy efficiency, (2) the pan-European integrated energy market, (3) safety and security, (4) leadership in energy technology and innovation, and (5) strengthening the external dimension (European Commission 2010). As a follow up, the European Commission proposed measures on how to strengthen the external dimension of the EU energy policy so that it could more often speak with 'a single voice'. In 2011, it presented the Communication 'The EU Energy Policy: Engaging with Partners beyond Our Borders' (European Commission 2011) followed by the European Parliament and Council decision on 'establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy' (European Parliament and Council 2012). Despite a more intensive legislative activity of the European Commission, most of its proposals, in particular on coordinated external policies of the EU member states vis-à-vis suppliers of energy resources, remained not adopted and unimplemented due to the lack of consensus among the EU countries.

In the context of the EU external energy relations and the Baltic Sea region, it is important to note the framework of the EU–Russia Energy Dialogue. Launched on 2010, it embodied three thematic groups focusing on energy strategies, market development, and energy efficiency, the Gas Advisory Council, and, following the Russia–Ukraine gas conflict in 2009, an early warning mechanism to prevent further supply interruptions. Within the framework of the EU–Russia energy dialogue, the Roadmap for Cooperation until 2050 was adopted in 2013. Since the military conflict in Ukraine, there have been no

further developments within the EU–Russia energy dialogue. Rather, the EU introduced economic sanctions against Russian companies and individuals linked to the aggression against Ukraine, and some of those sanctions are affecting energy cooperation by restricting the access of Russian energy companies to technologies, services or funding. Besides, as it was mentioned, many EU member states have intensified their work on diversifying their energy interdependencies to reduce their dependence on supplies from Russia.

In early Autumn 2014, even the German Chancellor Angela Merkel publicly spoke about the possible need for the EU 'in the medium to long term' to reconsider the energy partnership with Russia (Rinke 2014). At the same time, she noted that 'it is not our goal to completely sever our dependency' and that energy cooperation is in the mutual interest of both the EU and Russia (ibid.). Moreover, taking into consideration that energy is increasingly seen as a sector where conditions for competition can be created and most of its activities are no longer considered 'a natural monopoly', that liberalization of global energy markets is rapidly advancing together with technological innovations and international trade, that innovations and technological developments provide with such opportunities as a synchronous coupling of the IPS / UPS and UCTE power systems (UCTE, IPS / UPS 2008), and that the Baltic Sea region encompasses all three major electricity power systems UCTE, NORDEL and IPS / UPS, it allows to maintain that the EU–Russia energy relations will remain high on the agenda. The need to maintain supplies of energy to the Kaliningrad exclave surrounded by the EU territory should also act as an incentive for the EU and Russia dialogue, at least on the technical level.

In May 2014, the European Commission approved the 'Energy Security Strategy', which contained short-term measures for winter 2014–2015 and long-term measures to improve energy security (European Commission 2014a). As a short-term measure, the so-called

energy security stress tests were carried out for 38 countries, including all EU countries where energy supply disruption scenarios were simulated (a complete halt of Russian gas and disruption of Russian gas imports through Ukraine). The results showed that out of all BSR countries, Finland and Estonia would be impacted most (European Commission 2014b). Several months later, a study presented by the analysts of the Institute of Energy Economics at the University of Cologne concluded that Finland would be the only EU member state to experience serious shortages of gas during the first month after Russian supplies were cut off (although a relatively small role of natural gas, its energy mix together with compulsory stocks would mitigate the impact of disruption), Estonia and Germany and some other European countries were to be affected after the six-month embargo, while Lithuania and Latvia were projected to withstand a nine-months cut-off of supplies from Russia (Pop 2014).

The resilience of Lithuania and Latvia was expected to be improved due to the functioning of the LNG terminal in Lithuania and the gas storage of Inčukalns in Latvia, which were also stressed as important factors in improving energy security of all the Baltic States in another stress test of the European Commission modelling possible disruptions of gas supplies in winter 2014–2015 (European Commission 2014d). In this analysis, supply of gas to the Kaliningrad region of Russian Federation via Lithuania was mentioned as a factor creating 'a certain level of mutual dependency' between Russia and the Baltic States as regards gas supply, at the same time noting the efforts of Russia to reduce the dependency of Kaliningrad on this single route of supply (European Commission 2014d: 3).

This more intense legislative activity of the European Commission, directed at the further integration of the energy market within the EU and more coordinated energy policies among its member states, however, led only to limited practical results. In its most recent report on

the state of the EU internal energy market, the European Commission acknowledged that, despite the estimated benefits of 16–40 billion EUR per year from the removal of barriers to market entry, the internal energy market remained fragmented as indicated by the divergence of prices in different EU member states (European Commission 2014c). Although noting a progress in market integration and increasing energy security, the report is full of statements which point to the need to further proceed with legal alignment, infrastructure interconnections and creation of the competitive environment. The European Commission argued, for example, that 'Member States need to be serious about the internal market, applying the legal framework and stimulating the right investment' (2014c:6).

The emphasis on regional integration among neighbouring EU member states 'which have complementary energy mixes with excess capacity in one country and potential deficits in the other' (2014c:14) also indicates the choice of a less ambitious method of proceeding with sub-regional integration initiatives such as the Nordic and Baltic energy market integration, which could eventually lead to the EU-wide integration. This is also an indication that yet another deadline of 2014 when electricity and natural gas were supposed 'to flow freely' inside the EU has been missed. Despite more attention given to the issue of coordinated response to possible disruptions of supplies from the East, the national decision-making continued to dominate external energy policy decisions. As some close observers stated in early 2015, 'although much has been achieved in the last decade, it has not removed the fragmentation of the European energy system. […] The integration of the EU energy market is far away. The EU struggles to act collectively on the international scene.' (Andoura, Vinois 2015:14). It is in this context that the project of the Energy Union, presented by the European Commission in early 2015, should be seen.

The Energy Union became the most recent initiative of the European Commission to advance the energy market integration.

In its communication on the Energy Union it stated that 'we have to move away from a fragmented system characterized by uncoordinated national policies, market barriers and energy-isolated areas' (European Commission 2015a:2). It proposed measures to reduce price distortion that still existed in member states by capping the prices below cost, suggested to prepare sub-regional plans to cope with supply shocks, and building cross-border electricity interconnectors to integrate 'energy islands' like the Baltic States with the rest of the EU. Instead of looking like a major breakthrough, it looked rather like a manifestation of how limited has been the integration of the EU-wide energy market during more than fifty years of European integration, despite numerous attempts of the European Commission to do so. As some observers noted 'launched recently with all the glitz Brussels can muster, Mr. Šefčovič's proposal, a grab-bag of policies, promises and compromises, is a political confection as much as anything. Much of it simply aims to press governments to implement agreements that they have already accepted' (The Economist 2015: 27). It should be noted that in the field of external energy relations the European Commission proposed to further develop the EU's partnership with Norway, including its integration into the internal energy policies, and 'when conditions are right', to 'consider reframing the energy relationship with Russia based on a level playing field in terms of market opening, fair competition, environmental protection and safety, for the mutual benefit of both sides' (European Commission 2015a:7).

It seems that on the background of a slow progress in energy market integration by the majority of the EU member states, the European Commission has been more effective in using its competition policy instruments to deal with the third party suppliers that allegedly violated the EU antitrust law and abused their dominant position in the EU member states. After several years of investigation against Gazprom, which was initiated in 2012, following the complaint filed by Lithuania

in 2011 and extended to other seven countries from Central and Eastern Europe, in April 2015 the European Commission opened an antitrust inquiry. It was based on three charges against Gazprom – first, that the company imposed territorial restrictions, such as bans to resell gas to other countries, in the Baltic States and several other countries where it had the dominant position; second, imposition of unfair prices on the three Baltic States, Poland and Bulgaria; and third, conditioning gas delivery to commitments on gas transport infrastructure in Poland and Bulgaria. The use of competition policy measures by the European Commission might have a stronger influence on managing relations with the Russian supplier of natural gas and the extension of the EU regulatory framework (3rd energy package rules) compared to the attempts to use the Energy Charter, the Energy Community or a bilateral dialogue with Russia.

In addition to managing the existing interdependencies with external suppliers such as Russia and trying to remove regulatory and physical barriers to trade within the EU common market, since 2013 the EU has also been involved into negotiations on the transatlantic trade and investment partnership with the US. The Transatlantic Trade and Investment Partnership (TTIP) is mostly about liberalizing trade in various goods and services between the EU and the US as well as setting the mutually accepted regulatory norms and investment rules. It might also become an important regulatory tool to open up the US exports of gas and oil to the EU and thus create an important alternative source of supply. As noted by some analysts, 'the shale revolution in the US is reshaping the global energy landscape. In combination with the rise of liquefied natural gas (LNG), which allows transport of gas on ships, the shale revolution is 'globalising' hitherto regional gas markets' (Dreyer and Stang 2014). If the TTIP includes the provisions on trade in energy resources and is successfully concluded and ratified by all parties involved, in several years this might create an appropriate regulatory

environment to take advantage of price differentials in the US and the EU and further reduce the power of the current dominant external suppliers to the EU and especially countries like the Baltic States. For example, a study commissioned by the European Parliament concluded that the TTIP would 'improve the EU's security of energy supply through adding liquidity and competition to the natural gas market' (European Parliament 2015). It was, however, maintained that, despite the likely easing of licensing requirements for the export of natural gas from the US, most of it for the reasons of price differences would be directed to Asia rather than the EU, besides, exports of crude oil would probably not be affected by the agreement. Similar conclusions are made by other analysts claiming that 'even if the EU does not import directly from the US – an unlikely scenario – the prospect of more diversified and less costly gas imports will give it greater leeway when dealing with traditional gas suppliers like Russia' (Dreyer and Stang 2013: 4). Partly due to domestic politics reasons and controversy regarding trade in fossil fuels criticized by environmental interest groups, the US has been reluctant to openly engage into debates on explicit energy clause in the TTIP, and it remains to be seen how the final text of the agreement would address the issue. Moreover, the ambitious and wide-reaching negotiating agenda of TTIP, though increasing potential benefits of the deal, means that reaching an agreement is going to be more challenging, and the mobilization of narrow interest groups campaigning against it is likely to increase as negotiations between the EU and the US proceed. A fast conclusion of the TTIP allowing for a simplified procedure of exports of gas from the US to the EU would contribute very positively to enhancing energy security in the BSR.

2.2. The sub-regional initiatives in the BSR

The Baltic Sea region is interesting from the perspective of analysing cooperation in energy policy, because it offers a possibility to compare several sub-regional initiatives with a varying degree of success in achieving their objectives and advancing with the practical implementation of the energy market integration. In addition to the instances of bilateral cooperation, for example, the Estonia – Finland electricity link which was the first to connect the Baltic States with the Nordic – and thus EU – electricity market, several sub-regional initiatives emerged in the BSR. One is the Nordic electricity market, which was one of the many good practice examples of Nordic cooperation in different policy fields. Another is intra-Baltic States' cooperation which initially has been much less effective compared to the Nordic one. Finally, the third one is the Baltic energy market interconnection plan (BEMIP), which has been established partly as a result of failed attempts of the intra-Baltic cooperation and non-implementation of sub-regional agreements due to domestic politics in the Baltics (especially Lithuania and Latvia). The BEMIP is also interesting as a case of a broader sub-regional cooperation as it brought together most countries of the BSR, except Russia. The comparative assessment of those three forums of sub-regional cooperation can provide interesting insights for the future policy directions of the BSR countries as well as lessons for the EU and its other sub-regions.

Before discussing those different cases of sub-regional cooperation in the BSR, it is useful to compare the recent developments of sub-regional integration in the field of trade in goods in the BSR with a much slower integration of energy markets. The BSR stands out as a region of many different initiatives of sub-regional trade integration, which in the last two decades led to the formation of two integrated trade areas by 2015 – the EU including most countries of the BSR, with Norway closely integrated into it through the EEA, and Russia, which after a

number of years of mostly symbolic attempts to proceed with the re-integration of the CIS countries, since 2010 initiated more substantial measures of creating a customs union with Kazakhstan and Belarus, which in 2015 was renamed into the Eurasian Economic Union.

Table 8 provides an approximate chronology of how these sub-regional integration initiatives developed since early 1990s. It shows how EU enlarged in several stages to accept Sweden and Finland in 1995, which together with Norway have been part of the EFTA and in early 1990s started negotiating the EEA with the EU (and Norway remained part of the EEA after a popular referendum rejected the EU accession treaty), also how two free trade areas – one including Poland and other Central European countries (CEFTA), another including three Baltic States (BAFTA) – joined the EU in 2004. For example, after bilateral free trade agreements concluded with individual Nordic countries in 1992, next year Estonia, Latvia, and Lithuania initiated the intra-Baltic free trade area in industrial products, followed by the liberalization of trade in agricultural products in 1996 and removal of non-tariff barriers in 1997.

TABLE 8. Sub-regional trade integration initiatives in the BSR since 1990s

	DE/DK	FI/SE/NO	PL	EE/LV/LT	RF
1990–1991	EC (DE/DK)	EFTA7 (FI/SE/NO/AT/CH/LI/IS)	PL	EE/LV/LT	CIS (RF)
1992–1994	EU (DE/DK)	EEA / EFTA7	CEFTA	BAFTA	CIS
1995–2003	EU (DE/DK/FI/SE)	EEA / EFTA4 (NO)	CEFTA	BAFTA	Eurasian Economic Community Eurasian Economic Space
2004–2014	EU / EEA / EFTA				Eurasian Customs Union
2015	EU / EEA / EFTA				Eurasian Economic Union

Source: compiled by authors.

To a large extent, countries which formed the CEFTA and the BAFTA have been motivated to integrate on the sub-regional level in order to facilitate their accession into the EU. There is enough evidence to argue that the intra-Baltic trade liberalization proceeded in parallel to the integration of those three countries into the EU, with the former seen as an instrument by the elites in Estonia, Latvia, and Lithuania for the accession into the EU (Vilpišauskas 2003). The political consensus of elites in those countries in favour of the EU accession has been strong enough to overcome the resistance of protectionist interest groups which stood to lose from sub-regional market integration and the EU accession, although some instances of protectionist measures and 'trade wars' not complying with intra-Baltic FTAs have been observed. It is still not clear if the same logic could be applied to the integration of energy markets, since the structure of incentives is different – the EU-wide integration of energy markets seems less urgent, and even sub-regional coordination is likely to proceed only when the benefits of collective action outweigh the costs of adjustment, when collective action problems are solved to allow for the agreement on common rules and the choice of technical solutions, or particular countries are faced with crises which might also alter the calculation of benefits and costs.

During most of the 1990s, energy policy in the Baltic States, especially in Latvia and Lithuania, was regarded as a field of 'natural monopoly'. This approach, held by most policy makers and reinforced by managers of energy enterprises, created a strong resistance to reforming and opening up to competition through market integration, by using regulatory barriers to delay both actual implementation of the EU norms and sub-regional cooperation initiatives which could threaten the dominant positions of established companies, many of which had commercial links with suppliers from Russia. It could be argued that energy policy to a large extent followed the general economic policy, as illustrated by the divergent paths of Estonia with more open initial

external economic policies, on the one hand, and Latvia and Lithuania with more protectionist policies including more restrictive energy policies, on the other hand. Only faced with an acute domestic crisis of politics, resulting from the lack of preparation to manage the closure of the Ignalina NPP and the external pressure, domestic political elites in Lithuania mobilised to proceed with energy restructuring efforts. As it will be discussed below, due to domestic politics and capture by interest groups, these efforts have also led to failures of sub-regional coordination and adoption of unilateral measures such as the construction of the state-owned LNG terminal.

The same argument that energy policy cooperation and market integration is easier when it fits broader economic policies and reflects ideas about appropriate regulatory regimes held by political elites could be illustrated by the experience of Nordic countries. As it was mentioned before, Nordic countries were among the first in the EU (and the EEA) to move towards opening the energy market and a regulatory reform to introduce competition in the generation and trade of energy. Norway led the process in the early 1990s with Sweden and Finland following in the mid-1990s and Denmark joining several years later. In the case of Nordic countries, the sub-regional integration, for example, establishment of the Nord Pool (Nordic electricity exchange) proceeded in parallel with the EU initiatives at removing barriers to the common energy market, or rather ahead of them, especially in terms of practical implementation. Since then, the Nordic electricity market has been often characterised as a best practice example to be followed by other sub-regions (see European Commission 2015a).

The political support for deregulation and open competition as well as a sound institutional design and support of interest groups have been identified as the main factors explaining the success of the Nordic cooperation in this field (Amundsen and Bergman 2006). It could be maintained that the energy market integration among the Nordics has

been facilitated by open economic policies and a more transparent decision-making in those countries in general. The experience of the Nordic market also shows that it is often very technical and difficult to identify regulatory requirements such as the licencing of particular activities and other barriers which restrict competition and the entry of the new participants into the electricity market of generation, transmission, and distribution services that act as the most important barriers to trade. Attention to technical and regulatory details is often more important than political agreements on grand infrastructural projects in terms of increasing energy security.

The Baltic States, however, for a number of years since the re-establishment of independence in the early 1990s have been active in concluding political declarations on the need to advance with sub-regional energy cooperation projects in order to reduce the asymmetries of interdependence from supplies from Russia, but with little actual progress in implementing them. As argued above, differently from trade in goods where the prospect of the EU accession mobilized the three countries to conclude three free trade agreements among themselves, cooperation in other fields like energy or transport has been very limited and continued to be limited after they joined the EU in 2004. For example, the first Baltic Energy Strategy, underlining the importance of interconnections with North and West Europe to increase energy security, was signed by representatives of the three countries in 1998. However, only the electricity connection between Estonia and Finland (ESTLINK) was completed by 2007.

Although after accession into the EU all three Baltic States had been actively advocating integration of the EU internal energy market and urging to devote more attention to energy security matters, including the EU relations with external suppliers, they were often not able to agree among themselves on the joint projects such a regional LNG terminal. Also, when agreements were concluded, they have been later contested as illustrated by the disagreement in 2007–2008 among

Latvia and Lithuania on the location of electricity connection to Sweden or remained unimplemented as illustrated by the Baltic States agreement of 2006, joined by Poland for some time, on the project of the construction of a new nuclear power plant the prospects of which remained unclear in 2015.

The gap between political rhetoric and the actual practice could be explained by the extent of reform required to reorient the patterns of energy trade and interdependence, when interest groups and other actors who stand to lose from policy change and restructuring oppose it, when decision makers are affected by election cycles, and the institutional structure of coordination among several countries is complicated with many veto players present (Grigas 2015). The goal of integrating Estonia, Latvia, and Lithuania into the EU energy markets, first of all into the Nord Pool, and later possibly into the UCTE system, as well as the intention to reduce the asymmetries of dependence on a single supplier (in particular of natural gas) represent a change of systemic nature (Grigas 2012; Liuhto 2015). The introduction of competition and the choice of sources of supply into the energy market can be seen as a transformation of a similar magnitude to the other systemic reforms which the Baltic countries introduced in the early 1990s. Even though consumers would benefit from such a reform, a number of interest groups are likely to lose in the short-term. Therefore, the persistent difficulties in delivering the most important energy projects targeted at increasing the choice of suppliers, introducing competition and increasing energy security are not surprising. The technical complexity of most energy issues provides additional opportunities for the regulatory institutions to manipulate the rules in order to prevent access by new suppliers and energy market participants, especially if these regulatory institutions are captured by the companies established in the market.

Moreover, most energy projects are characterized by long-time horizons, usually exceeding the political cycles in these countries. For

example, an electricity power bridge or a new nuclear power plant can take 6 to 10 years or more to be constructed. Taking into account the volatile politics in the Baltic States and shifts in governing coalitions, it is often the case that newly formed governments review the instruments and strategies of implementing previously agreed national energy policy goals. Thus, even though the main energy policy priorities, such as the construction of interconnections and the creation of a regulatory framework for the development of renewable energy sources are agreed in parliaments by all major parties, once a new government is formed, it is likely to review the previous policy, in such a way delaying the delivery of the policy objectives. For example, a closer look at the National Energy Strategies of Lithuania since 1999 (renewed in 2002, then in 2007, and again in 2010) very visibly shows how the key objectives and strategic priorities (construction of electricity linkages to the Nordic countries (Sweden) and to Poland, construction of a new nuclear power plant, increasing the efficiency of heating systems in communal houses, and others) have been repeated in every new strategy with the deadlines for their implementation being postponed yet again and again.

Probably the best illustration of non-implementation is provided by the project of constructing the new nuclear power generating capacities to replace the old Ignalina NPP, which were discussed in the Strategy of 1999 with a deadline of 2009 foreseen for their construction. In 2015, the perspectives for this project are unclear, further complicated by the consultative referendum in 2012 initiated by the opposition at the time that resulted in a negative popular vote with respect to a new nuclear power plant and the increased political uncertainty of this project.

Finally, there is one more factor that makes the practical delivery of the energy policy objectives of the Baltic States particularly complicated, namely, collective action problems when the projects involve a group of countries, increasing the transaction costs of reaching agreements and their actual implementation. Again, the project of the Visaginas nuclear

power plant, where Estonia, Latvia, Lithuania, and Poland (some time later withdrawing its participation) were the participating parties and private investors with a needed know-how that expressed their interest is an example of such a group. A dispute, which took place in 2007–2008 between Latvia and Lithuania on the issue of where the electricity power bridge from Sweden to the Baltic States should be constructed, is another example of such collective action problems. After having delayed the project for more than a year, it was solved mostly as a result of the EU involvement and provision of funding for the domestic electricity infrastructure in Latvia.

Thus, for a number of years the Baltic States persistently faced a gap between rhetoric and the implementation of sub-regional projects among themselves and also with other countries of the BSR. The issue of closing the second reactor of the Ignalina NPP (and constructing a new NPP) is a good case in point deserving to be discussed in more detail. It shows how only faced with the perspective of deterioration of the security of supply and potential negative political outcomes in the approaching elections, the Lithuanian Government mobilized resources to deal with the issue which eventually led to the adoption of the Baltic Energy Market Interconnection Plan.

Although from the moment the EU accession negotiations were completed in 2002 it was clear that the closure of the Ignalina NPP would increase Lithuania's energy dependency on supplies from Russia, it was only in 2008 that the Government mobilized resources to address the matter and established a special task force led by the former prime minister of Lithuania to suggest ways to secure the supply of energy after the shutdown of the second reactor of the Ignalina NPP. The goal of the task force was to explore all possible energy supply options, including the presumable postponement of the closure of the Ignalina NPP. A number of meetings took place with officials of the European Commission as well as with representatives of nearly all EU Baltic Sea countries addressing

energy security situation and its possible deterioration not only in Lithuania, but in the whole BSR. In April 2008, Claude Mandil, a former Executive Director of the IEA, in his report on energy security, prepared for the French Prime Minister and the forthcoming Presidency of the EU Council, described the situation of energy supply to the Baltic States as 'particularly difficult' because of their dependency on Russia (Mandil 2008:15). With a single Estonia–Finland electricity interconnection of a limited capacity (350 MW), the Baltic States have been largely isolated from the European Union power and gas systems. Approaching the closure of the Ignalina NPP was seen as leading to a further increase of their dependency on supplies from Russia. It was around that time when the phrase 'the EU energy island' was circulating.

After initial attempts to negotiate the postponement of the closure of the Ignalina NPP, which included even such bargaining tactics as the initiation of the consultative referendum on the issue together with parliamentary elections in 2008, the Lithuanian government managed to agree with the European Commission on a new instrument of sub-regional cooperation to advance joint projects in the BSR and to increase energy security. Initially, the President of the European Commission J. M. Barroso on the eve of October 2008 European Council summit at the meeting with 8 Heads of the States of the BSR announced the launch of the EU Baltic Energy Market Interconnection Plan (BEMIP). A high level group was established to complete the task. The plan was prepared in less than nine months and endorsed by the memorandum signed on June 2009 by eight Baltic Sea region EU member states' leaders and the President of the European Commission.

The goal of the plan was to develop internal electricity and gas markets, electricity interconnections and new electricity generation capacities, to diversify sources and routes of natural gas supply, and to enhance coordination of actions in the oil sector. In other words, the main purpose of the BEMIP was to end the energy isolation of the BSR

and to integrate it fully into the EU energy markets. The plan was developed in the form of tables where concrete steps, projects, target dates and responsible bodies were identified. The implementation monitoring was conducted by the High Level Group chaired by Director General for Energy of the European Commission. Norway as a member of the EEA was participating in the process as an observer. The BEMIP projects became part of the European Economic Recovery Plan (EERP) which meant that they were eligible for the EU funding. The projects could further be funded through the European Regional Development Fund, the EU's Cohesion Fund, and, as projects of a common interest, through the Connecting Europe Facility. The BEMIP formed part of the overall 'EU Strategy for the Baltic Sea Region'. Although the plan applied to all BSR EU Member States, its main focus was on integrating energy sectors of the three Baltic States. The implementation of the BEMIP facilitated the transfer of Nordic countries' best practice of the electricity market model to the Baltic States and the integration of the Baltics into the Nord Pool Spot power exchange system. Finland, Sweden, and Poland invested in the development of power and gas interconnections, and where the projects commercially were not viable the EU stepped in with financial assistance.

In autumn 2014, the Commission launched the reform of the BEMIP initiative to further reinforce cooperation on energy matters in the BSR, and in June 2015 the European Commission announced the signing of the Memorandum of Understanding on the reinforced Baltic Energy Market Interconnection Plan, that is adding new elements – such as energy efficiency, renewables and security of supply – to the existing BEMIP framework (European Commission and Governments 2015).

The BEMIP cooperation proved to be useful in several aspects. It was particularly important in solving collective action problems like the one when Lithuania and Latvia could not agree on the choice of

location for the electricity link with Sweden by providing joint rules and resources to facilitate an agreement. Although usually the input of the EU is associated with funding of the feasibility studies of energy projects and co-financing the implementation of some projects, the BEMIP has been a good example of how the EU can contribute to solving collective action problems by facilitating an agreement among the partners in the Baltic regional projects and by monitoring the implementation of the projects. Such monitoring arrangements are also likely to have a positive effect on the continuity of the project implementation amidst the political cycles and changes in the governments of the participating countries.

Thus, the BEMIP has also been important in strengthening the time consistency of policy implementation, although when national positions resulting from domestic politics diverged to a significant degree, coordination efforts still led to failures. For example, although the integration of natural gas markets also formed a part of the BEMIP, progress in this area has been more limited than in the electricity market with the Baltic States failing to coordinate decisions on the construction of a regional LNG terminal and aligning their regulatory environment (Bulakh 2015). The new LNG terminal in Lithuania, which became operational in late 2014, was an outcome of a unilateral effort of Lithuanian institutions. However, the need to reduce its operating costs is likely to exert additional pressure on regulators and market participants to reduce regulatory barriers to trade in gas among the three Baltic States and to help them align their still divergent schedules of implementing the 3rd EU energy package, also to connect the Baltic gas market with the Polish one.

To sum up, the energy policy in the Baltic countries has been characterized by numerous failures of implementation and large delivery gaps. The need for a systemic reform and restructuring of the energy sector causing resistance from the interest groups and veto

players, the technical complexity of the projects and regulatory policies, long time horizons characterizing the projects, frequent political changes resulting in regular reviews of policy instruments and large groups of participating actors have all contributed to the presence of delivery gaps. While some external actors, mostly the EU, assisted in solving some of the coordination problems among the Baltic States, other actors contributed to the persistence of the status quo in the energy policy and the uncertainty regarding the achievement of energy policy goals (Smith 2010; Balmaceda 2013).

Moreover, the presence of numerous policy goals on the energy policy agenda, ranging from the facilitation of competition and opening of alternative sources of supply to energy efficiency, the sustainability and environmental friendliness of the energy policy has been dispersing attention and resources making the actual implementation efforts more fragmented. Clear prioritization of energy policy objectives, for example, by making the introduction of competition by regulatory policy changes and construction of infrastructural links a clear priority, could be an example of concentrating resources and making policy more effective.

As shown by the discussion of the slow progress of integrating the EU energy markets, at least for some time to come the EU is likely to remain a place with a number of energy markets separated by differences in the regulatory environment and a lack of infrastructural connections. In this context, the focus on the Baltic–Nordic (and Baltic–Polish) regional energy integration seems to be appropriate on both economic and political grounds. The Baltic States have been rightly focusing their attention on joining the closest regional electricity market of the Nordic countries (Nord Pool). The electricity power bridge (Estlink 1 with the capacity of 350 MW), functioning since 2007 between Estonia and Finland (with Estlink 2 with a capacity doubled by 2014), is an important first step in this direction. The Lithuanian–

Swedish connection of 700 MW, foreseen for the end of 2015, should provide another major step in integrating the Baltic–Nordic electricity markets (see Table 9).

TABLE 9. Implementation of BEMIP in order to integrate the Baltic States' energy markets

	Estonia	Latvia	Lithuania
1991–2008	Isolated EU 'Energy Island' Single EE-FI power interconnection Estlink 1 (350 MW, 2007)		
2009	**Endorsement of BEMIP**		
2010–2015	Creation of common power market and integration into Nord-PoolSpot. Completion of electricity interconnections: • Estlink 2 (EE-FI, 650 MW, 2014); • NordBalt (LT-SE, 700 MW, 2015); • LitPolLink first phase (LT-PL, 500 MW, 2015). EE/LV/LT: implementation of the 3rd Energy Package in electricity LT: implementation of EU 3rd Energy Package in gas sector. Reinforcement of internal gas and electricity systems.		
2015–2020	Completion of LitPolLink second phase (LT-PL, 500 MW). Creation of a common gas market. EE/LV: implementation of EU 3rd Energy Package in gas sector. Completion of natural gas interconnection GIPL (LT-PL, 2018–19). Continuing reinforcement of internal electricity and gas systems. Synchronization with European Continental Networks (UCTE).		
2015	**Memorandum of Understanding on the Reinforced BEMIP**		
	Agreement on the extension of the scope and preparation of the new Action Plan.		

Source: compiled by authors.

The gradual opening of the Baltic electricity exchange, which was started in 2010 and is based on the Nordic electricity exchange (Nord Pool) model, is yet another important development in this respect. An integrated Nordic–Baltic and later Polish electricity market (LitPollink

with the first 500 MW electricity link to be completed by 2016 and the second one of the same capacity by 2020) with regulatory policies facilitating exchange, trade and entry of new market participants, is a priority for the Baltic States, in particular if the integration of the EU energy market continues to be slow and restricted to sub-regions of member states with converging regulatory regimes. Provided that the BEMIP is implemented according to the schedule, the Baltic States might be integrated into the Nordic–Baltic electricity market by 2016.

The situation in the field of natural gas is somewhat more complicated with difficulties extending beyond simply translating policy objectives into concrete actions and projects. Estonia, Latvia, Lithuania, and Finland are the only EU Member States that remain isolated from the integrated EU gas transmission system. Despite the discussions on potential sources and routes of supplies of natural gas through pipelines (for example, a connection between Poland and Lithuania and some other projects) as well as possibilities for LNG terminals, the prospects for these plans are still unclear, except for one major change – the construction of the LNG terminal in Lithuania. Interestingly, in a search for the economic viability of this project and possible customers of liquefied gas, the Lithuanian operator has looked into the Swedish company AGA for a good practice example of constructing a small terminal for using liquefied gas to power ships. The functioning of the LNG terminal and first contracts to export gas from it to Estonia have also reinforced discussions in Latvia, which has been slower in implementing the provisions of the 3rd EU energy package regarding unbundling, on accelerating the alignment of its regulatory norms in the gas sector with those of Lithuania and Estonia (Dudzińska 2015).

To sum up, the efforts of the Baltic States to increase their energy security have for a couple of decades been complicated by the extent of systemic change of redirecting the asymmetries of interdependence, the resistance of interest groups motivated to preserve the status quo and

policy makers, often captured by those interest groups. Membership in the EU initially did not contribute to dealing with those challenges. With the adoption of BEMIP and a closer cooperation between the Nordic and Baltic countries, the sub-regional energy projects started advancing. The Baltic States have been adopting the regulatory instruments of what has been considered the best practice from the Nordic countries, advancing with infrastructure connections to create physical conditions for the opening of electricity and natural gas markets. The benefits from these policies integrating energy markets could be maximized if Poland and Germany joined the Nordic–Baltic exchanges as well.

It should also be noted that developments far beyond the region, like the ones in Ukraine or the shale gas and oil revolution in the USA, have also played a part if not in the actual changing of the pattern of energy interdependencies in the region, but at least in the way policy makers have been thinking about and acting on those issues. The fact that the most important external supplier of energy to the EU – and an actor casting long energy shadows in the Baltic neighborhood – decided to challenge the very basic principles of international order and cooperation in the post-Cold war Europe has provided an additional incentive to both national governments and EU institutions to address the question of energy security in a more comprehensive and efficient manner. We should not expect those changes in attitudes to be immediately translated into a practical political action and this action to have an immediate effect on the energy security of the region. However, we hope that this sobering effect will motivate responsible decision makers to address those vital questions in a proper manner and reduce the gap between political rhetoric and actual delivery of concrete steps in creating conditions for the integrated energy markets.

Conclusions and recommendations

The analysis of the changing patterns of interdependencies and trade in energy resources in the BSR, adoption of the EU regulatory policies and sub-regional coordination initiatives showed that, albeit slowly, energy trade patterns have been changing since the EU enlargement in 2004. First, we can observe that countries in the BSR continue to rely on different mixes of energy resources, some favouring natural gas and other fossil fuels, other relying more on hydropower and others renewables, still others using nuclear energy or debating it. Different countries are also characterised by a differing degree of energy inter-dependencies and regulatory environments, for example, the choice of implementing the 3rd EU energy package.

Second, Russia and Norway remain the two most important suppliers of oil and natural gas to other BSR countries, although their relative importance has been changing with the former declining and the latter increasing in significance.

Third, inter-state trade in electricity has been increasing and this trend will continue with the completion of the work on several new interconnections (NORDBALT and LITPOL) that will lead to the further integration of Nordic and Baltic electricity exchanges, completion of the work on the Baltic Energy Ring and creation of one of the best functioning sub-regional electricity markets in the world to serve as the best practice example for other EU sub-regions.

The history of the EU energy market integration has been marked by missed deadlines and repeated and not always successful attempts to remove regulatory obstacles to the creation of the single energy market

and common external energy policy. The declaration of the European Council in February 2011 in which a target date for the creation of a single energy market was set at the end of 2014, presentation of the EU strategy for energy security in May 2014 and the official launching of the European Energy Union project in early 2015 are just three of most recent examples. The slow progress in the EU wide integration can be explained by the divergence of the member states' interest due to the divergence of their positions in terms of national mixes of energy sources, patterns of trade in energy resources, and national regulatory regimes. Taking this into account, sub-regional cooperation might be a very useful way of dealing with energy security concerns of those EU member states that face similar challenges or are geographically close and can take advantage of the differences in resource endowments to become more integrated through interconnections and regulatory alignment.

Therefore, the countries of the BSR should continue their focus on sub-regional market integration initiatives – implementation of electricity and natural gas interconnections within the BSR, which should increase the diversity of sources of supply and demand, integrate the Baltic states' electricity market with the Nordic market and the natural gas market with Poland and the rest of Europe, and facilitate the transfer of the best regulatory practices. The BEMIP, which has become one of the best practice examples of sub-regional cooperation, has become a useful platform for such initiatives. The LNG terminal which started functioning in Lithuania in the end of 2014 could also provide an input into the further regulatory integration of the natural gas markets in all three Baltic states to maximize its use and make it commercially viable in addition to serving as an instrument of energy security.

At the same time, broader initiatives aimed at eliminating regulatory and physical barriers to trade in energy resources in the EU and

globally should be supported. Gradual integration of different sub-regions within the EU as a result of implementing the European Energy Union initiative should be supported, although the focus should be on eliminating regulatory and infrastructural barriers to trade and market entry for new suppliers and intermediaries to foster competition and innovations rather than centralized decisions favouring particular suppliers or energy resources. The fast conclusion of the TTIP and inclusion of provisions allowing for the export of gas and oil from the US to the EU are important for the future strengthening of energy security of the BSR, for example, by creating a potential for the import of gas from the US through the LNG terminals.

In 2009, in his summing up of the findings of the study on energy cooperation and security in the BSR, Kai-Olaf Lang listed the following challenges the region faced when dealing with energy policy (Lang 2009):

- German–Russian partnership
- Dependency and differing threat perceptions
- Transit rivalry
- Fragmentation and sub-regional integration.

He also meant that there were several regional pull-factors and drivers of competition that could push energy developments in the region in a paradoxical direction, resulting in the region being at the same time pushed together and apart. He listed the EU's common energy policy as one of the key factors shaping the future of energy cooperation in the region, listing the market integration and liberalization as well as the principle of energy solidarity as three factors that could lead to enhancing energy cooperation, not least through the development of a new energy infrastructure in the region. He meant that the further EU-ization of the region and its expected integration with the rest of the EU energy system would also contribute to further energy cooperation.

He listed also a number of other factors that could hinder the development of further energy cooperation in the region: 'the highly politicized and securitized aspects of energy policy like transit routes, pipeline politics and diversification options' among those disjunctive factors, but pointing also out at the fact that cooperation in less politicized areas, such as energy efficiency, renewable energy sources or climate-friendly production and consumption could help to develop the regional framework for energy cooperation. In Lang's opinion, 'pipeline projects and rerouting plans have stirred up new discussions about maritime safety, transportation security and the ecological implications of energy transit' in the region (Ibid., 290) and were indeed viewed as highly divisive issues (Godzimirski 2009b, 2011).

Our current study has shown that not all those issues have been successfully addressed during the six years that have gone since the publication of Lang's assessment. The dramatic events of 2014 and 2015 have had a sobering effect on the European and not least German energy policy making community, and there are signs that the EU is more willing to speak with one voice on energy and give an adequate support to sub-regional initiatives that will in the short-, mid-, and long-term perspective have a positive impact on energy security, also in the BSR.

One should therefore not underestimate the direct and indirect impact of the developments in other parts of Europe – and on the global stage – on energy security in the region. The Russian–Ukrainian crisis is undoubtedly one of those developments having already impact on energy cooperation between Russia and the EU (Godzimirski 2014b), while the technologically driven shale gas and oil revolution as well as the expected conclusion of the TTIP between the US and the EU may also help the latter address its energy security dilemmas. For the majority of the countries in the BSR the key question will be how the EU is to address the question of energy security in the future and

whether the EU will redefine its short-, mid-, and long term energy and climate policy goals in response to emerging political, economic, and security challenges (Bressand 2012).

There seems to be a clear understanding in the EU of the fact that the BSR faces a number of specific energy security related challenges that have to be addressed at both sub-regional and the EU level. The European Energy Security Strategy, published in May 2014, mentions the Baltic region no less than 14 times, describing the Baltic and the Eastern European members as more vulnerable than others (European Commission 2014a). The same document presents a rather grim assessment of the effects of the implementation of policies on the situation in the region, stating that 'the development of competitive and well-integrated markets in the Baltic States and in the South East of Europe lags behind, depriving those regions of the related security of supply advantages' (Ibid., 9). The authors of the document argue that there is a need for 'targeted approaches that speed up the development of critical infrastructure as well as the establishment of regional gas hubs in these regions' (Ibid., 9). The document also presents a list of measures that have already been taken – or should be taken – to improve the energy security of the region (Ibid., 22–24).

The successful implementation of those proposed measures will depend not only on the support provided to those infrastructural projects by the EU, but also on the motivation and ability of the countries in question to work together on addressing those sub-regional energy security challenges in the increasingly challenging international environment. As some analysts suggested, 'in the best case scenario, with a fully implemented 3rd Energy Package and a settled Gazprom antitrust case, European energy would be traded as a purely economic commodity on spot markets, without take or pay clauses or oil price indexing, and resources would be fungible as soon as they enter the integrated European energy market, allowing for distribution anywhere

in the EU through builtout, reverse-flow infrastructure' (Pedersen 2014:15).

The countries of the region should therefore show more engagement in the process of shaping a new common energy policy within the framework of the emerging Energy Union as a way of coping with national, sub-regional and European energy security challenges. Although this framework is relatively new, it has some promising features that can help the EU meet its energy security challenges in a more efficient manner. National and European policy makers should also learn how to use the experimentalist framework of energy policy making in the EU and make use of the regional and sub-regional cooperation instruments for the improvement of regulatory and infrastructure conditions for the markets to contribute to pursuing energy security policies more efficiently.

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About the authors

JAKUB M. GODZIMIRSKI is research professor at the Norwegian Institute of International Affairs (NUPI). He holds a PhD in social anthropology. Between 1995 and 2012 he served as senior research fellow at the Centre and Department of Russian and Eurasian Studies at the NUPI. In 2009–10, he was the head of the NUPI Energy Programme. In 2012–13, he was the head of the NUPI Research Group on European Affairs, and since 2014 he is again member of the NUPI's Russia team. His present research interests include the Russian foreign and security policy, with a focus on energy role and Russia's relations with the West. He has edited several volumes on these issues and published many peer-reviewed articles and book chapters on the Russian policy and its reception in Europe.

RAMŪNAS VILPIŠAUSKAS is the director and professor of the Institute of International Relations and Political Science, Vilnius University. In 2004–2009, he has worked as a Chief Economic Policy Advisor to the President of Lithuania Valdas Adamkus and the Head of Economic and Social Policy Group, he has also been appointed to coordinate the team of advisors to the President (2006–2009). His main research interests include political economy of European integration, policy analysis of public sector reforms, international political economy. He has been a visiting fellow at several universities in the USA (Syracuse University) and Canada (Carleton University), a Fulbright scholar at the Columbia University, conducted research at a number of European institutions including the European University Institute (Florence). He has graduated in the International Trade and Commercial Diplomacy program at Carleton University (Ottawa), Swedish Institute Management Program (Stockholm). His recent publications include: 'Eurozone Crisis and European Integration: Functional Spillover, Political Spillback?' in *Journal of European Integration*, vol. 35, no. 3, April 2013, p. 361–373, 'Lithuania's double transition after the re-establishment of independence in 1990: coping with uncertainty domestically and externally' in *Oxford Review of Economic Policy*, Summer 2014, vol. 30, no. 2, pp. 223–236, 'Lithuania's EU Council Presidency: Negotiating Finances, Dealing with Geopolitics' in *Journal of Common Market Studies*, vol. 52, Annual Review, August 2014, pp. 99–108.

ROMAS ŠVEDAS for 20 years has been a civil servant and from 2011 is an Independent Expert and Lecturer at the Institute of International Relations and Political Science of Vilnius University. He is the former Vice-Minister of Energy of the Republic of Lithuania (2009–2011), Director of the Economic Security Policy Department (2007–2009) and Economic Relations Department (1999–2003) at the Ministry of Foreign Affairs, the former Deputy Permanent Representative of Lithuania in the European Union in Brussels (2003–2007), and the Counselor at the Lithuanian Permanent Mission to the United Nations Office and of other international organizations in Geneva (1995–1999). Romas Švedas is well aware of the stage-by-stage Baltic Sea energy sector development over the past decade since he was a member of the EU High Level Group of the BEMIP (2008–2011) as well as the Chairman of the Boards of 'Klaipėdos nafta' (2010–2011), the Ignalina Nuclear Power Plant (2009–2011), 'Litgrid' (2010–2011) and member of the board of the 'Lietuvos Dujos' (2010–2011). He has been in charge of the development of such projects as the New Nuclear Power Plant in Lithuania, 'Nordbalt' and 'LitPolLink' power interconnections, LNG terminal, transformation of the EU 3rd energy package into Lithuanian legislation.

THE INSTITUTE OF INTERNATIONAL RELATIONS AND POLITICAL SCIENCE (IIRPS) was founded in 1992 as a faculty status holding core academic unit of the Vilnius University wherein studies in political science and scientific research are conducted. Currently, the IIRPS is a leading academic and research institution in Lithuania in the field of international relations and political science.

As an academic institution, the IIRPS organizes three-level studies: BA in Political Science, six MA master programmes (International Relations and Diplomacy, European Studies, Comparative Politics, Politics and Media, Public Policy Analysis, Russian and Eastern European Studies (the latter delivered in English), and PhD studies, being the first educational institution in Lithuania granted the right to train scientists in the field of political science. The Institute also offers further training courses for civil servants.

The IIRPS is actively involved in various international projects and programmes covering such topics as regional security and foreign policy, European Integration, international cooperation, democratisation in the transition period, the role of nationalism, public sector reforms, etc. The Institute organizes conferences and seminars, cooperates with international organizations, funds and embassies and is a member of numerous international academic organizations and networks.

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The study maps changing energy relations in the Baltic Sea region in the aftermath of two events – the 2004 EU enlargement that has changed the political and institutional / regulatory landscape of the region and the outbreak of the armed conflict in Ukraine that has put the issue of energy security – and security in more general terms – very high on the European political agenda. It discusses how the regional distribution of energy resources and energy policies have contributed to altering the level of energy security in the whole region and in particular countries, how various actors have addressed energy security concerns by cooperative policies, in particular, EU wide and sub-regional (Nordic, Baltic) coordination measures aimed at managing energy interdependencies and increasing energy security.

Studijoje analizuojama, kaip pasikeitė energetinio saugumo situacija Baltijos jūros regione per pastarąjį dešimtmetį, ypač po 2004 m. Europos Sąjungos plėtros, kuri paveikė politinį, institucinį ir reguliacinį kontekstą ir 2014 m. prasidėjusio ginkluoto konflikto Ukrainoje, kuris ir energetinį, ir bendrą saugumą pavertė europinės politinės darbotvarkės prioritetu. Studijoje nagrinėjama, kaip regioninis energetinių išteklių pasiskirstymas ir energetikos politika prisidėjo prie energetinio saugumo pokyčių regione ir atskirose šalyse, kokius tikslus kėlė skirtingų šalių veikėjai ir kaip juos įgyvendino, bendradarbiaudami tarpusavyje, ypatingą dėmesį skiriant Europos Sąjungos ir subregioninio (Šiaurės, Baltijos šalių) koordinavimo priemonėms, kuriomis siekiama valdyti energetinę tarpusavio priklausomybę ir stiprinti energetinį saugumą.

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Jakub M. GODZIMIRSKI
Ramūnas VILPIŠAUSKAS
Romas ŠVEDAS

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