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Searching for energy independence, finding renewables? Energy security perceptions and renewable energy policy in Lithuania

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ABSTRACT

Lithuania's electricity sector has one of the EU's highest dependency rates, with about seventy percent of consumed electricity being generated abroad. This high rate was accentuated by the fact that until 2015 the dependency was on a sole country, namely the Russian Federation. With virtually no primary energy resources of its own, Lithuania progressed from a pro-nuclear to a renewable national energy strategy in just one decade. Based on the revised Copenhagen Securitization School, this article analyses energy security perceptions as a factor that determines the recent turn in Lithuanian energy strategy. Our findings show that renewable energy policy was shaped by the perception of potential energy security threats, but in contrast to the theory of securitization we identify achieving a high degree of perceived energy security as the primary enabler of renewable energy. The analysis of political processes leading to two distinct national energy strategies (2009–2012; 2013–2018) shows that rather than renewable energy being installed *because* of the energy security concerns related to the high dependency rate, it was the desecuritization of energy supply which allowed the turn to a renewables-based strategy. Only after a certain level of perceived energy security was established by linking up to the European energy landscape, Lithuania found it permissible to base its national energy strategy on renewables. The findings shed light on Europe's geography of (de)securitization, an East-West split within the European Union in terms of renewables and energy security. On the basis of our findings we conclude that the current geopolitical crisis in Eastern Europe is greatly affecting this geography, possibly to the detriment of the transition to renewable energy.

1. Introduction

A growing number of countries is committed to reaching the goal of a net zero carbon economy. Renewable energy (RE) is an important component of this strategy. As a result, the energy sector of many economies is currently undergoing a dynamic transition. This, in particular, concerns the electricity sector, where renewable energy technologies such as wind and solar power are becoming cost-competitive, and according to the International Renewables Agency now dominate the global market for new electricity generation capacity (IRENA, 2021, pp. 5–6). However, the pace of change towards renewables is uneven between geographies (Ibd.:8). Some countries are transforming their energy systems, but the improvements are not consistent across countries or over time (WEF, 2020, p. 6; WEF, 2021, p. 16). Significant differences between countries remain in terms of their performance in increasing the share of renewables in their energy sector.

In view of these differences, the determinants of renewable energy represent a widely-discussed topic. A large body of literature has emerged analyzing and discussing the driving forces behind renewables deployment, including geographical factors. This article focuses on energy security as a driver of RE. There are strong theoretical reasons to

expect energy security to be a driver of renewable energy deployment. However, there is no consensus in the existing literature. Some authors conclude that energy security is the main driver behind RE deployment (Valentine, 2011, p. 4572; Narbel, 2013; Valdé s Lucas et al., 2016:1043), other scholars conclude that – somewhat counter-intuitively – the opposite is the case: energy security issues may actually hamper RE deployment (Marques & Fuinhas, 2011, p. 1607; Marques & Fuinhas, 2012, p. 116; Aguirre & Ibikunle, 2014). For European countries, the findings are particularly distinct. In this region, a negative influence of energy security on renewable energy deployment has been demonstrated (Bourcet, 2020, p. 10).

In view of the ambiguous results in the literature, this article focuses on the relationship between energy security and RE deployment. Rather than measuring the direct effect of energy security on RE deployment, we pursue the question whether energy security is driving the adoption of renewable energy support policies. We ask whether energy security concerns directly determine countries' decisions to deploy renewable energy – that is policies to support renewable energy.

Our case is Lithuania, a small state in Europe's Baltic region. This country has witnessed several energy transitions in the past two decades (IEA, 2021, p. 11). With the closure of its only nuclear power plant

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(Ignalina), Lithuania switched from being a net exporter of electricity to a net importer. Today, Lithuania imports 9 TWh of electricity a year (IEA, 2021, p. 101) to satisfy an average consumption of around 11 TWh (see Fig. 1). Until April 2022, Lithuania was also dependent on natural gas imports from neighboring Russia (circa 45 percent of national consumption; IEA, 2021, p. 127, Euractiv, 2022). This made Lithuania an extreme case of energy dependence. Moreover, given its specific position in the regional energy system, Lithuania was considered part of the Baltic *energy island* (Švedas, 2017). Poor in fossil energy resources, this region is widely perceived to be exposed to a dominant supplier (Russia) (Ibd.).

We argue that in the case of Lithuania, only after a number of energy security goals were considered achieved could renewables become a vital element of the national energy strategy. To evaluate the validity of this argument, the article analyses energy security discourses in Lithuania and traces the evolution of energy security perceptions and their significance for Lithuania's energy policy. The analysis is based on the securitization theory of the Copenhagen School (Buzan et al., 1998; Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017). According to this theory, the socially constructed perception of energy security directly determines energy politics and policy. Along the lines of this theory, we assume that energy security perceptions by relevant actors are a key explanatory factor in establishing different energy policies (Szulecki, 2018, p. 14). Specifically, we base our analysis on the assumption of the Copenhagen School of a linear mechanism between energy security perception, securitization of energy-related issues, and extraordinary policy responses (Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017, p. 35). Following the Copenhagen School, we expect strong effects of securitization on decision-making processes and measures taken (Nathan & Fischhendler, 2016, p. 22), including policy responses which break with the 'normal' political process (Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017, pp. 35-36).

Amid rising geopolitical tensions in the region, Lithuanian energy policy has continuously emphasized energy security (IEA, 2021, p. 11; NATO ENSEC COE, 2021). Energy security, and import dependency in particular, is therefore widely understood as a very strong determinant of developments in the Lithuanian energy sector (IEA, 2021, p. 13). Hence, if energy security is indeed a direct determinant of RE deployment (as described by much of the relevant literature outlined above), Lithuania should have been an early adopter of renewables. However, the Lithuanian case does not conform with this logic. We therefore suggest that in the Lithuanian case, it was the *de-securitization* of energy supply which allowed renewable energy to replace nuclear power as a solution for energy supply.

Our findings indicate that the achievement of an increased level of perceived energy security around 2015/2016 enabled the latest turn in Lithuanian energy strategy from nuclear to renewables. Only after this turning point did the perspectives of the main actors start to shift from nuclear energy as a source of domestic electricity supply to include the potential merits of renewable energy. In other words, renewable energy only took hold in Lithuania's energy strategy once the level of energy security was perceived by securitizing actors as sufficient to guarantee Lithuania's energy independence.

Crucial to this de-securitization was a geopolitical and spatial component. Historically, Lithuania was locked into a geography that amplified its energy security concerns. In regard to electricity supply, this primarily concerns the BRELL-ring – a regional, Russia-dominated electricity grid system from the Soviet era. Centrally operated in Moscow, this grid infrastructure integrates the energy systems of Belarus, Russia, Estonia, Latvia and Lithuania. Russian initiatives to make its Kaliningrad exclave independent from electricity supply through BRELL confronted Lithuania with the possibility of supply cuts. Russia's

domination of gas markets in Eastern Europe (Högselius & Kaijser, 2019, p. 442) further substantiated the country's inability to maintain electricity supply under all circumstances. Altering this geography by turning away from being locked into the former Soviet energy system and towards connecting and supplying Lithuania by EU countries (electricity) and Norway (natural gas) led to the desecuritization of energy supply.

We conclude that in the Lithuanian case effective changes in the regional energy geography changed the perception of energy security, which in turn opened a window of opportunity for an ambitious renewables-based energy strategy (see Table 1). These results stand in contrast to a more linear understanding of the relationship between geopolitics, energy security and renewables. Moreover, the findings highlight the significance of regional energy geographies for the perception of energy security, and thus for the deployment of renewable energy.

The theoretical implications are important. We should not expect states to install renewable energy for energy security reasons. In fact, the case of Lithuania shows that energy security can be a hindrance against renewable deployment. Moreover, this case shows that the achievement of basic energy security goals can enable a perception of renewable energy as viable part of national energy supply, and hence the incorporation of RE in national energy strategies. Finally, our findings help us understand how geopolitics and regional security has split the renewable energy policies of EU countries into two geographically and spatially arranged camps, one that strongly advocates RE, and one where energy security is prioritized. This has broad implications for EU policies such as the Energy Union. In view of the current geopolitical crisis in Eastern Europe, the perception of what is 'energy secure' and what is not, is currently changing in many countries. Lithuania can be regarded as an important example in which to study the implications of these changes. Simply put, the Russian invasion of Ukraine in early 2022 leaves us with a new geography of (de)securitization where large parts of Europe consider themselves somewhat of an energy island; Lithuania is a helpful case to shed light on some of the possible implications.

To guide our analysis, section 2 provides a comprehensive theoretical framework. Section 3 presents the methodology (discourse analysis and process tracing) as well as the data. Sections 4 presents the findings, which are analysed in section 5. Section 6 presents our overall conclusions.

2. Theoretical framework: energy security, RE deployment, and the revised Copenhagen Securitization Theory

A growing number of papers investigates the relationship between potential determinants of RE deployment, and the share of renewables in individual countries or regions. With regard to independent variables, this includes i) regulatory, ii) political, iii) economic, iv) social, and v) technological factors (Bourcet, 2020, p. 5; Sener et al., 2018:2338), and various RE deployment metrics as dependent variables (Bourcet, 2020, p. 10). The interest in energy security as a potential driver saw a peak around 2014, potentially as a consequence of the volatile geopolitical situation in Eastern Europe. During the most recent years, this subject has again attracted scholarly attention (Fischhendler et al., 2021; Wang et al., 2018), once more with a strong focus on Europe and the European Union (Gökoz & Güvercin, 2018; de la Esperanza Mata Pérez et al., 2019; Shivakumar et al., 2019; Marra & Colantino, 2021).

The results of this literature are mixed due to a large variety of determinants (489 according to Sener et al., 2018:2338), indices (Narula & Reddy, 2015), and geographies under study (Bourcet, 2020, p. 8). Whether energy security is a driver of renewable energy (RE) deployment or not, is, therefore, still contested (see introduction).

¹ Among all EU members, Lithuania has the highest energy importdependency rate (Eurostat, 2019).

² Of 48 papers analysed by Bourcet (2020), only two specifically address energy security as a determinant of RE deployment (Ibd.:8).

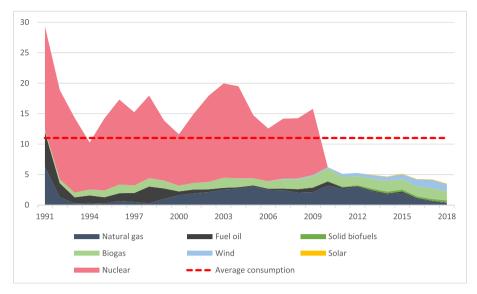


Fig. 1. Lithuania's domestic electricity generation by fuel, TWh (Eurostat, n.d.; IEA, 2021, p. 101).

Table 1Renewable energy targets as proposed in 2018 national energy security strategy (LRS, 2018).

Renewable share	2020	2030	2050
Of final energy consumption	30%	45%	80%
Of electricity consumption	30%	45%	80%
Domestic electricity generation as share of total	35%	70%	100%
electricity consumption			
Of district heating	70%	90%	100%
Of transport	10%	15%	50%

The impact of security of supply on the deployment of renewable energy also represents a central topic in the emerging geopolitics of renewables literature (Blondeel et al., 2021). Numerous studies in this field evaluate the interplay between geopolitical context and the transition to renewable energy (Blondeel et al., 2021). Similar to Valentine (2011), the argument goes that renewables provide countries with new options for meeting their energy needs domestically and thus a new opportunity to secure supply (Scholten & Bosman, 2018, p. 327; Scholten & Bosman, 2016), 'now and in the foreseeable future' (Valentine, 2011, p. 4572). Hence, renewable energy is believed to alleviate geopolitical risks (Scholten & Bosman, 2018, p. 327) by contributing to fuel mix diversification (Vakulchuk et al., 2020, p. 4; see also; IEA, 2007). Similarly, Fischhendler et al. (2021) observe that energy insecurity and the desire of countries to free themselves from fossil fuel import dependency are being discussed as important factors in incentivizing collective behavior towards adoption of renewable energy (3, 13). In short, the geopolitics of renewables literature does advance the idea that renewables strengthen energy security because compared to fossil fuel RE is more evenly distributed (Månsson, 2015, p. 1) and close to non-depletable (Johansson, 2013, p. 601).

It is therefore tempting to assume that governments pursue the objective of increased energy self-sufficiency by fostering the deployment of RE. Yet the relationship between the objective energy security situation and RE deployment is far from straightforward (Valdés Lucas et al., 2016). The reason for this may be simple: between an objective energy security situation on the one hand, and renewables deployment on the other, comes policy and the complicated process of making it. Thus, understanding the relationship between energy security and RE deployment requires insights into the meanings policymakers ascribe to these topics (Fischhendler & Nathan, 2014, p. 154). In other words, energy security can be characterized as a social construction and hence

be (partly) driven by the energy security conceptualizations of various policymakers and stakeholders.

We therefore take recourse to the Copenhagen Securitization Theory developed by Buzan and Wæver (Buzan, 1991; Buzan et al., 1998; Wæver, 1995). In contrast to other approaches, the Copenhagen School conceptualizes (energy) security primarily as a social construct (Buzan et al., 1998, p. 214). Developed to extend security studies from politico-military issues to the economic, societal and environmental sectors, the Copenhagen School focuses on security as the outcome of security discourses in which issues intersubjectively become security issues through speech acts (Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017).

The main idea is that securitization is a discursive process through which an intersubjective understanding of existential threats and countermeasures is socially constructed (Buzan & Wæver, 2003, p. 491). Securitizing actors are central to this process, i.e., those individuals and organizations that based on their perceptions of a given security situation construct narratives around referent objects, threats (Buzan et al., 1998, p. 23), and present those to a given political community. In essence, securitizing actors highlight the urgency and level of a perceived threat, thereby making some courses of action appear more reasonable than others. The final step is audience acceptance (Buzan et al., 1998, pp. 25, 31), which, as Romaniuk (2018:2) notices, depends on the way in which the audience receives and subsequently processes or interprets the speech. Where securitization is successful, the political processes and measures that follow tend go beyond the established rules of the game (Buzan et al., 1998, p. 23).

The rationale behind putting the focus of this study on political constructs follows the observation that 'energy security means different things in different situations and to different people' (Cherp & Jewell, 2014, p. 416). Hence, different perceptions of RE and energy security can lead to the adoption of different policy options. In order to analyze what did effectively determine the turn towards renewable energy in Lithuania's national energy security strategy, this article analyzes the threat narratives presented to Lithuania's public sphere during the policy making processes leading to the country's national energy security strategies of 2012 (LRS, 2012) and 2018 (LRS, 2018). By the use of discourse analysis and process tracing, the study taps into the narratives that surround the two strategies (Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017, p. 44), thereby making determinations of what did effectively function as the driver of renewable energy policy, and what did not. Based on the Copenhagen School, our assumption is that energy security (import dependency) did not directly determine the place of RE

in Lithuania's energy policy. Rather, we expect that the achievement of a high enough level of energy security opened the way for a national energy security strategy based on renewables: Changes in the structure of the energy system affected how central actors perceived energy security, which allowed for the de-securitization of power supply. We argue that it was this de-securitization that in turn affected the perception of renewable energy and its potential to provide a secure basis for domestic power generation.

3. Methods and material

If energy security is to be studied as a potential driver of RE policy, its social construction in a given society and at certain points in time needs to be captured (Fischhendler & Nathan, 2014, p. 154). Specifically, the prioritization or non-prioritization of energy options during the policy-making process needs to be captured (Cherp & Jewell, 2014). Lithuania implemented two National Energy Independence Strategies in quick succession – in 2012 and 2018. Both set out energy independence as a goal. Both strategies share common approaches to the achievement of this objective, namely energy supply diversification, energy efficiency, competitiveness, and renewable energy growth. However, there is a striking difference regarding domestic power production. Nuclear energy was an available option throughout both time periods and beyond, either by building a new nuclear power plant or by continuing import of electricity generated by nuclear plants from Russia and Belarus. However, while the 2012 strategy largely neglected renewables and was built primarily around the proposition to construct a new nuclear power plant (in Visaginas), the 2018 strategy is primarily based on the idea of rapidly accelerating the development of renewable energy. In view of the differences between the two strategies, we ask what motivated the shift to renewable energy.

To assess energy security as a driver of renewable energy policy, we ask what caused the shift in Lithuania's national energy strategy from an emphasis on nuclear power to an ambitious RE-based approach. Based on a revised version of the Copenhagen Securitization Theory, and following Hajer's (1995), we examine the process leading to Lithuania's energy security strategies by means of a combination of political discourse analysis and process tracing. The aim is to provide the most plausible explanations as to how, when and why the energy security strategy shifted from nuclear energy to renewables as the main basis of domestic supply, i.e., to identify triggers or intervening variables which enabled the change.

3.1. Discourse analysis

To study the shift in Lithuania's energy security strategy, we follow Hajer (1995) who argues that discourse plays a key role in processes of political change (43). According to this approach, politics can be understood as a struggle in which actors try to achieve 'discursive hegemony', that is, widespread support for their definition of reality (Hajer, 1995, p. 59). Using this approach, our analysis focuses on narratives and storylines related to the run-ups to the Lithuanian national energy strategies from 2012 to 2018. Yet how exactly energy security is conveyed does not only depend on 'what is being said' (Hajer, 2005), but also on how competing interest groups discursively promote their agenda and for what purpose (Fischhendler & Nathan, 2014, p. 154). Following on the Copenhagen Securitization School, we therefore focus on securitizing actors, that is the discursive transformation of an issue into a matter of security (Ibd.) through speech acts (Heinrich & Szulecki, 2018; Szulecki & Kusznir, 2017). Policymakers, experts and regulators can be expected to function as the 'securitizing actors', essentially because their role puts them in a position to securitize issues by declaring something as existentially threatened (e.g. state sovereignty or national identity; Buzan et al., 1998, p. 36). We therefore focus the analysis on high-ranking politicians, officials and experts. Finally, we assume that the different argumentative lines and narratives voiced by

actors in this group can align broader groups of actors (Hajer, 1995). We aim at identifying these discourse coalitions (Hajer, 1995), i.e., groups of actors with a similar stance towards energy security.

3.2. Process tracing

To trace the influence of individual discourse coalitions their influence on Lithuania's energy security strategy we evaluate 'in what context' (Hajer, 2005, p. 72) these coalitions operated. In addition to the discourse analysis, we therefore include the backdrop of wider events and changes in background condition in the analysis. Assuming that discourses lead to policy, our goal is to identify those changes on conditions that allowed the Lithuanian energy security discourse to shift from a nuclear-based approach to domestic supply, to a renewables-based one. Beyond analysing energy discourses, we therefore also trace objective changes in Lithuania's energy security situation suited to explaining the evolution of the country's national energy security discourse in the two time periods (2009–2012 and 2013–2018). In other words, by presenting the national energy security discourse against the chain of events, we check for possible 'intervening causal processes' (George & Bennett, 2005, p. 206). Combining background knowledge, geopolitical context, and findings from the discourse analysis, we provide a detailed sequence of events during the years 2009-2018, tracing events in the field of environment, international and EU politics, and nuclear power. This list should not be considered exhaustive. It does, however, reflect the most dominant variables specific for Lithuania during the covered time periods. The goal is to provide an empirically founded analysis of the causal chain that led to the puzzling change of Lithuania's energy security strategy during the last decade.

3.3. Data collection and processing

We have employed various data sources. Nine semi-structured interviews were conducted with policymakers and experts in Vilnius, Lithuania in February and March 2019 (see Table 2). Though the study centers around the perceptions and debates of policymakers, the latter often rely on advice and guidance from epistemic communities (Genys, 2013). Additionally, to policymakers, we therefore also interviewed five energy experts. A semi-structured interview guide was created specifically for the interviews with three blocks of questions relating to energy security in general and specific topics such as i) Lithuania's Energy Independence Strategy, ii) perceptions of renewable and nuclear energy, iii) the Belarus nuclear power plant, iv) EU integration and new interconnectors. The four blocks of questions were chosen on the basis of available information on energy security issues in Lithuania, as well as

 $\begin{tabular}{ll} Table 2 \\ \underline{List of interviewees.} \\ \hline Nr & Affiliation \\ \end{tabular}$

1

2

3

6

Member of Parliament and former Prime Minister, representative of Social
Democratic Party and member of the national Energy Committee
Member of Parliament, one of the leaders of Homeland Union/Christian
Democratic Party
Government official, working in the Climate Change Management Group
(former Renewable Energy Department) of the Ministry of Energy
Government official, working in the Energy Security Group of the Ministry of
Energy
Energy expert from the influential and highly rated think tank "Lietuvos Laisvos
Rinkos Institutas"
Energy expert affiliated in Vilnius University, specializing in energy policy and
international relations
Energy expert from NATO Energy Security Centre of Excellence based in
Vilnius.
Energy expert, who directly contributed in preparation of the latest energy
strategy (affiliated in the Lithuanian Energy Institute)
Energy expert affiliated in the Lithuanian Energy Institute
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energy security perceptions and their effects on renewable energy in Lithuania. The interviews helped to identify further data sources such as policy documents, newspaper articles, and academic texts.

More primary data was obtained from official websites of Lithuanian political institutions, particularly Seimas, Government, and Ministry of Energy. In particular, this pertains to documents such as statements, press releases, declarations, and communications. For the period of 2009–2019, a total of 124 statements was found on the official websites of the mentioned institutions. In addition, the minutes of 28 parliamentary debates" in the 2016-2019 period were analysed. Data was selected using the phrase "energetinis saugumas" [lit. energy security] in the search space in various forms to adhere to complexities of the Lithuanian language. To include energy security debates not covered by political statements, this study also uses mass media articles. Three of the most popular and influential online news portals - www.delfi.lt, www.lrytas.lt, www.15min.lt - were used to obtain articles from the period 2009 to 2019, using the same keywords as with political press releases. In total, we obtained 72 media articles. Finally, secondary data such as historical and geopolitical analyses used by scholars specializing in Lithuania's and Baltic States' affairs were included in the analysis. Translated from Lithuanian, the sampled documents, news and press releases were categorized and coded, based on the theoretical framework of 'low vulnerability of vital energy system' definition of energy security and securitization theory, focusing on the threats/vulnerabilities and measures.

The discourse analysis is divided into two periods, 2009–2012 and 2013–2018. The sampled material was qualitatively coded following the definition of energy security proposed by Cherp and Jewell (2014) and the revised Copenhagen Securitization Theory by Heinrich and Szulecki (2018), Szulecki and Kusznir (2017). Four main themes were coded and analysed:

- 1) Definition of energy security;
- 2) Threats and vulnerabilities to energy security (security from what?);
- 3) Referent objects (security for who or what?);
- 4) Measures or policies addressing the threats and vulnerabilities (security by which means?).

Based on the literature and interviews with politicians and energy experts, the following potential drivers of energy security were included in the coding: a) environmental concerns (climate mitigation), b) political dimensions (EU membership), c) risks related to nuclear power, and d) new interconnectors.

4. Lithuania's national energy security discourse 2009-2018

In this section, we highlight energy security discourses in the political processes leading to the 2012 and the 2018 energy security strategies. As we show below, the perception of renewable energy as a tool for self-sufficiency in electricity generation varied considerably throughout the assessed time periods, questioning whether there is a direct line between energy security concerns and the turn towards renewables in Lithuania's energy security strategy.

4.1. Dominance of nuclear energy (2009–2012)

2009 was marked by external and internal events perceived as problematic by a great majority of actors within the political process leading to Lithuania's 2013 energy security strategy. The Ukraine-Russian gas conflict started to escalate in January 2009. Simultaneously, Lithuania faced the shutdown of the country's last working reactor at Ignalina. The closure of the plant did not come as a surprise to

the government or the public,⁵ yet the increased energy dependence on Russia was perceived by the great majority of securitizing actors as a new and direct threat to Lithuania's energy security.

The analysis shows that the differences in perceptions of energy security were diverse and strong enough to facilitate the emergence of two separate discourse coalitions with positions that significantly differ from each other (see Figs. 2 and 3). Both coalitions agreed on the importance of energy security being 'the biggest challenge for Lithuania', 'of the highest importance in the security politics' and 'the most vulnerable and sensitive part of Lithuania' (Digrytė, 2009; Lietuvos Rytas, 2010; Nacickaitė, 2010). However, the coalitions diverged about the meaning of energy security and how to achieve it:

- The pro-nuclear discourse coalition stressed the need for energy independence from Russia and promoted building the Visaginas nuclear plant as the central and cheapest measure to achieving it;
- The anti-nuclear coalition expressed concerns about the high concentration of the Lithuanian energy market that would follow the construction of a nuclear power plant, and the possible implications for consumers and taxpavers.

Domestic power production from renewables occurred in the discourse as one of the potential measures to increase energy security, yet compared to other proposed measures, RE had a very low prevalence in the discourse (see Table 3). Hence, renewable energy as a potential solution to domestic energy supply did not directly contribute the formation of a discourse coalition in the time period 2009–2012. Members of both identified coalitions had a positive perception of RE as a measure to increase energy security, yet no group formed around renewables as a main option for domestic power production. Instead, the construction of the Visaginas nuclear power plant was perceived by the majority of actors as a viable option for domestic supply and thus dominated the political process.

In view of the increased dependency following the shutdown of Ignalina, securitizing actors of the pro-nuclear coalition often referred to energy independence – a concept closely related to political independence and sovereignty – when defining energy security. Lithuania as a state, its sovereignty, and people were frequently among those referent objects that have been mentioned in relation to energy security threats. There was also a strong geopolitical connotation to this perception, as many actors perceived energy security as key to Lithuania's national security. For example, the Speaker of Parliament argued that 'energy security is tightly connected to politics and geopolitics'. She also questioned Russia's reliability as a partner and alluded that Russia might use 'energy related pressures' (Ruzgys, 2010). Consequently, the goal of energy independence was very high on the political agenda, and mainly seen as an answer to a geopolitical threat. As the Lithuanian Minister of Defence at the time stated in reference to an official Russian national security document: 'to those in doubt about the importance of our energy independence, I remind them that Europe's (and our) goal to achieve energy independence is the first on the public list of military threats to the Russian Federation' (Juknevičienė, 2012).

Seen against this background, the exposure of Lithuania as an 'energy island' with weak integration into the North and Central European grid systems constituted an important source of threat to many securitizing actors. Accordingly, the view that the integration of Lithuania in the mentioned European systems represents a solution to open energy security questions was highly prevalent among securitizing actors. Similarly, the proposed measures to achieve energy security included diversification of energy supplies, integration with the EU power market, and the construction of an LNG terminal. However, compared to the notion of constructing a new nuclear power plant, diversification of

 $^{^{3}}$ Data prior to 2016 was not readily available.

⁴ Full data set can be obtained from the authors.

 $^{^5}$ EU membership in 2004 included a commitment to fully closing Ignalina (Švedas, 2017).

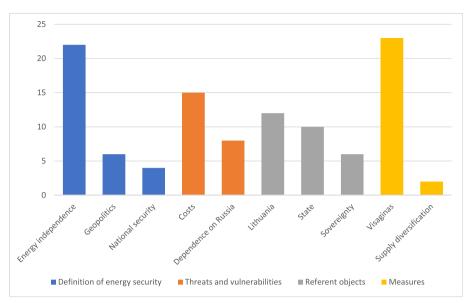


Fig. 2. Pro-nuclear coalition statements in sampled texts, 2009–2012.

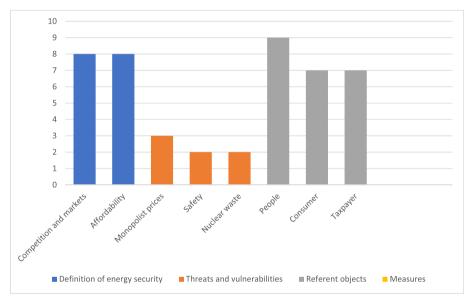


Fig. 3. Anti-nuclear coalition statements in sampled texts, 2009–2012.

Table 3 Overview of data used.

	Data 2009–2012	Data 2013–2018	
Primary sources	9 interviews (see Table 2)	9 interviews (see Table 2)	
	61 documents	28 parliamentary debates - protocols	
	25 media articles	63 documents 47 media articles	
Material used in	President: 6 statements	President: 11 statements	
discourse analysis	Policymakers: 67 statements	Policymakers: 104 statements	
	Political parties: 11 statements	Political parties: 14 statements	
	Energy experts: 6 statements	Energy experts: 12 statements	
	Scientists: 5 statements	Scientists: 6 statements	

supply was only of secondary importance during the 2009–2012 period. The Baltic energy market interconnection plan BEMIP from 2009 – a political agreement to integrate the Baltic states into Continental Europe's energy markets by installing new grid-interconnectors – did not change the orientation of the majority of actors towards nuclear energy as the preferred solution to lack of domestic electricity generation. Also, the initiation of the Klaipeda liquefied natural gas port in 2010 to solve the supply dependency problem and counter-balance Gazprom's monopolist pricing policy (LNG, 2013) did not immediately change the perception of the majority of securitizing actors of nuclear energy as the primary answer to the gap in domestic electricity generation.

To the great majority of securitizing actors, the mentioned threats to the respective referent objects made energy independence a priority, and the construction of a new nuclear plant was seen as the appropriate measure. In the wake of the 2011 Fukushima nuclear accident, the focal point of the discourse shifted towards nuclear safety issues, yet the accident did not diverge the focus of the majority away from nuclear

energy (Grumbinas, 2012).⁶ Fukushima also highlighted the potential role of renewable energy as a potential answer to security of supply questions. Yet this option was widely perceived as available only in the distant future and as too expensive for Lithuania: 'We cannot survive on alternative energy, which only rich countries can afford. We can pay the highest prices (for energy) compared to the whole of Europe and be the cleanest, but it means no money left for pensions, salaries for teachers and similar things' (Fuks, 2012). Financial support for renewable energy was, hence, not widely seen as an adequate reaction to the perceived energy security threats. Energy experts also pointed out the intermittency and storage issues, practically dismissing renewables as a solution (Točkus, 2012). Consequently, the anti-nuclear coalition did not perceive and promote renewable energy as a viable option to domestic supply of energy, but largely left the question about measures open.

4.2. Rapid movements in turbulent times (2013-2018)

In this time period, no clear-cut discourse coalitions could be identified. The reason is to be found in Russia's annexation of the Crimea. In Lithuania, these events brought about a strong degree of unity amongst the securitizing actors behind the objective of national *energy independence*. This goal dominated the energy-related discourses since late 2013/early 2014 and thus overrides the underlying variety of perceptions of energy security in the studied time period. Moreover, the perception of changes in the wider energy landscape, such as the Paris Agreement, added a new dimension to the energy security discourse in a sense that environmental arguments gained in significance. In all, the energy security discourse in the examined time period can be described as diverse (see Fig. 4).

Before these events, towards the end of 2012, a change in Lithuania's government resulted in a more *economic perception* of energy security. In this view, energy was perceived primarily as a precondition for prosperity. A noticeable part of Lithuanian policymakers stressed the need for partners and technologies to guarantee secure and stable supply, 'delivered by free market principles' (Degutiene, 2013). Most notably, the newly appointed Prime Minister Butkevičius promised to review the 2012 Energy Independence Strategy and the prospect of the Visaginas nuclear plant from all 'economic, financial and energy aspects' (Rudaitis, 2013). The stated goal of this revision was 'to ensure that consumers get electricity and other energy sources at the best conditions' (Rudaitis, 2013). Also, energy experts (Šilėnas, 2013a, 2013b) maintained that energy imports do not necessarily constitute an energy security issue. Hence, energy security perceptions evolved around the theme of 'reliable and secure supply at the … lowest price for consumers' (Daukšys, 2013).

Following Russia's 2014 annexation of Crimea, energy security was again widely perceived as an existential geopolitical and military threat (Kubilius, 2014b). Spring of 2014 onwards, the soundness of the economic perception of energy security was widely challenged, and low energy prices were no longer seen as equally important as geopolitical arguments (e.g., Grybauskaitė, 2014). This includes energy infrastructure projects to connect Lithuania. Following the events on Crimea, these were perceived primarily as a geopolitical tool to change the political relationship with Russia (LRSK, 2018, p. 53), rather than economic enterprises. Disconnecting from the Russian electricity supply system and synchronising with Europe was now one of the main focal points for many securitizing actors (Sinkevičius and Poderys, 2017). As one actor put it, Lithuania is 'ready to cut the energy relations (via the BRELL system), which economically would be important, yet geopolitically they are even more important, however, negatively' (LRSK, 2017,

p. 14). Simultaneously, *synchronisation* with the European Continental grid in the Baltic energy market interconnection plan BEMIP via newly built *grid interconnectors* was highlighted as a possible measure vital to achieve energy independence (LRSK, 2019, p. 11) and to counter the threats emanating from Lithuania's position in the BRELL ring (Markevičienė, 2018). Consequently, a high-level agreement was signed to accelerate the essential BEMIP strategic projects and thereby defend them from the potential exercise of Russian pressure (Kubilius, 2014a).

The Ostrovets nuclear plant in Belarus still represented an important element of Lithuania's energy security discourse. Critics understood the Ostrovets plant as an existential threat, the Chairman of the Commission for Energy calling the plant a threat to 'the state's existence' (LRSK, 2017, p. 51). Politicians also described Ostrovets as a 'ticking bomb at the border of Lithuania' (Balsys, 2016), 'one of the biggest nuclear and geopolitical threats' (LRSK, 2017, p. 25), and 'a big monster, built by Russia 40 km from the Lithuanian border' (LRSK, 2017, p. 56). The rapid construction of this plant just across Lithuania's border may have contributed to the perception of the plant as a threat. In response, legal measures were being developed to limit its consequences for Lithuania's electricity sector (LRS, 2017; LRS, 2017; LRSK, 2017;10).

With regard to environmental issues, the Paris Agreement (2015) also had an effect, as it increased the awareness of climate change. Hence, the number of debates regarding climate issues increased. CO₂ emissions and climate change were perceived by some securitizing actors as a danger for Lithuania. When considering the ratification of the Paris Agreement, politicians recognized its importance for 'our future and the future of the next generations' (LRSK, 2016, p. 59). However, in view of the generally low carbon intensity of the Lithuanian economy (Eurostat, n.d.), initially many securitizing actors perceived climate change as a bit 'surreal' (Degutienė, 2013). However, the Paris Agreement was signed in 2016 (Plyniuvienė, 2016)., and when presenting the new National Energy Independence Strategy to the parliament, the Minister of Energy confirmed that 'it will seek to eliminate negative effects to climate change with clean energy, so the novelty of the strategy is an exclusive focus to renewables growth' (LRSK, 2017:64). However, as compared to other threats, climate change found relatively little room in the discourse leading to the adoption of the new energy security strategy (LRSK, 2018, p. 35).

When it comes to renewable energy, many policymakers initially showed themselves sceptical due to the considerable need for investments and the expected high energy prices as compared to other options such as nuclear energy (Degutienė, 2013). Many securitizing actors perceived renewables as a priority, but not an *absolute* priority. Rather, it was seen as a potential part of future developments in the energy mix, where different technologies compete with each other on a path towards climate change mitigation and competitiveness (Degutienė, 2013). Energy experts therefore suggested caution in introducing and subsidizing a higher share of renewables in the energy mix (Šilėnas, 2013c) as it was considered 'silly to produce a much more expensive energy just because it is local when other alternatives are available' (Lietuvos Rytas, 2015).

However, from 2016 onwards, the prevalence of renewables in Lithuania's energy security discourse increased dramatically. What is more, renewables were perceived more and more enthusiastically as a 'breakthrough' in terms of energy production. The Prime Minister, for example, presented the government's working program with 'the main strategic direction is local energy production growth based on renewables. It will be our foundation for reaching long-term EU and international climate change goals, and increase our energy security' (Rudaitis, 2016). Also, renewable energy was suddenly seen as a competitive energy source (LRSK, 2018, p. 9). In other words, during the 2013–2018

⁶ That same year the Lithuanian Government chose the Japanese company Hitachi as the principal strategic investor to build a nuclear plant to be operational by 2020. A concession agreement was signed in the following year (Ministry of Energy, 2012).

⁷ Here it needs to be highlighted that in the years leading to the new strategy, renewables already played a significant role in the Lithuanian electricity sector (see Fig. 1).

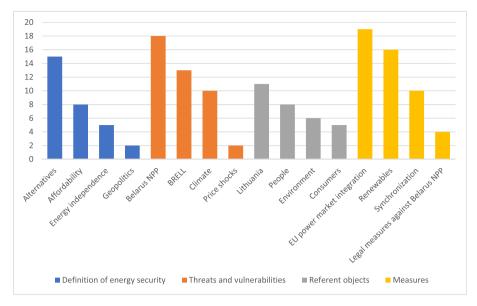


Fig. 4. Energy security discourses in sampled texts 2013–2018.

period, the perception of renewables saw a fundamental change. By the end of that period, energy security and competitiveness were widely believed to be achievable by the use of 'locally produced green energy' (Trembo, 2016). This more positive perception of renewable energy remained a central element of the energy security discourse also after the 2016 election which brought a new government to power. The strategy does not include a definition of energy security, yet it is believed that it will enable Lithuania to follow the 'transition path that many countries have already taken', where 'the green energy niche became mainstream energy on which the state's economy is built' (LRSK, 2018, p. 50).

5. Analysis: renewable energy in Lithuania's energy security discourse

Above we presented Lithuania's energy security discourse leading to two separate national energy strategies. Between the assessed two periods, there is a great degree of continuity. This continuity includes a persistent supply gap, a relatively strong geopolitical perspective on energy security shared by many actors, a widely held positive appraisal of nuclear power as a possibility to close Lithuania's gap in domestic energy supply, and little emphasis of RE as a suitable source for achieving energy security. However, the prevalence of renewable energy as a means to achieve energy security changed dramatically during the later stages of the second time period. For most of the political process, renewables were one option amongst others, perceived by many actors mainly as an option for the distant future. This perception changed around 2015/2016. At that point, renewable energy suddenly became the main tool for filling the gap in domestic energy production. In contrast, the idea to build a new nuclear power plant disappeared quietly from the related discourses towards the later stages of the 2013–2018 period, leading to a point where a new government in 2016 quietly 'froze' the Visaginas nuclear project (Lietuvos Rytas, 2016).

Given the geopolitical events and the prevalence of more geopolitical interpretations in the Lithuanian energy security discourse, it could be assumed that the turn towards renewables was directly motivated by energy security questions. Across the two studied periods, the geopolitical threat level for Lithuania was increasing. With the construction of the Ostrovets nuclear power plant in Belarus, the prospect of continued energy dependence slowly became more concrete. In addition, the equipment of Kaliningrad with new energy infrastructure pointed more and more towards a situation where electricity supply to Lithuania could

be cut unilaterally by Russia without negative consequences for its Baltic exclave. In other words, the Lithuanian electricity sector would have become an insertion point for Russian geoeconomic power for another decade – if no alternative source of supply could compensate for the electricity import via the BRELL system. Finally, with the annexation of Crimea, the perceived threat level reached new heights.

However, these geopolitical developments do not explain the disappearance of nuclear power from the political scene or the late surge in renewable energy. Our results therefore question whether there indeed is a linear relationship between energy security and a renewables-based national energy strategy. The construction of Russian/Belarusian-built reactors in Lithuania's geographic proximity continued throughout both time periods covered by this analysis, and with it the danger of economic dependence, i.e., being deliberately cut off from electricity supply. Many relevant Lithuanian actors believed that to counter the threat, adequate electricity generation was required within Lithuania's borders. Nuclear energy appeared attractive because beyond providing enough generation capacity for self-sufficiency, a nuclear power plant also promised a source of electricity that is competitive with the newly built nuclear plants across the border. The Ukraine crisis and the annexation of Crimea only served to make these arguments more effective in the discourse.

The evidence therefore points more towards changed outside framework conditions that allowed renewable energy to gain more room in the strategic thinking of the main actors involved in the political process. Several possibilities of what opened this room can be ruled out:

- Speed it is possible that the deployment of renewable energy could have been seen as a faster and cheaper option to fill the supply gap. It is, however, doubtful whether this is the case, particularly in consideration of the advanced stages of the planning of the Visaginas nuclear plant, and the novelty of wind and solar in Lithuania's power sector.
- Costs renewable energy has seen gradual cost reductions over the past years. These reductions may have facilitated the turn towards renewables, but in view of the sharp turn in the perception of renewables, cost reductions cannot be more than part of the puzzle.
- Paris Agreement it could be argued that growing environmental concerns motivated the change in strategy, as Lithuania adopted the Paris Agreement (LRS, 2016) and committed itself to reducing greenhouse gas emissions by 40 percent by 2030 compared to 1990 levels. However, in the wake of the Fukushima nuclear disaster in

2011, the point of view of many pro-nuclear actors that Lithuania's domestic supply should be built on nuclear energy was not affected. Furthermore, the aim of reducing greenhouse gas emissions does not rule out the deployment of nuclear power plants. Seen in that light, the shift in Lithuania's energy security strategy does not appear motivated by environmental concerns. Rather, our sources also indicate that climate change mitigation played a secondary role.

For the sharp shift towards renewable energy to be explained, other background variables need to be taken into account. In the intersection with geopolitics, infrastructure projects play a central role in that regard, as their deployment and planning significantly altered the nature of Lithuania's energy dependence. A number of such projects allowed Lithuania to diversify its external electricity supply and reduce import dependency from Russia, for example the NordBalt cable with Sweden,⁸ and the LitPol interconnector with Poland. However, growing interconnector capacity with EU member countries alone does not explain the shift in the approach to domestic generation. The new power links will merely secure sufficient competition between different markets and the possibility to import electricity from the market offering the lowest electricity price at the particular moment (Norvaiša & Galinis, 2016, p. 38). Thus, energy dependence in itself has not been diminished, merely the energy dependence on Russia. Beyond this, progress with regard to the BEMIP plan needs to be considered another important background variable that affected the perception of energy security issues amongst those actors participating in Lithuania's energy security discourse. After a long period of stagnation, the project of synchronising the Baltic electricity system with Central Europe began to make progress around 2016, leading to a political agreement in 2018 that i) secures financial support for another underwater power interconnection between Lithuania and Poland (Harmony Link), and ii) confirms aspirations for full synchronisation by 2025. Finally, the change of perception of the majority of Lithuanian energy security actors with regard to renewable energy can be explained if seen against the backdrop of an LNG port having come into operation in 2015. Natural gas represents only a minor segment in the Lithuanian electricity generation system. However, with LNG from Norway being fully available, and the electricity system in the process of diversifying towards supply from Sweden and Poland, the overall energy security situation seemingly reached a point where the plans for building a large power generation plant lost some of its prior appeal. In a spatial sense, Lithuania went from being locked into energy dependence on Russia, to the accession of a different energy geography. By physically linking to the energy system of EU member countries (electricity) and Norway (LNG), it cut itself off the BRELL infrastructure. This change in geography is essential to understanding the shift towards renewables.

Hence, around 2015/16 a turning point can be identified (see Fig. 5). From that point onwards, the energy security threats involved with the remaining electricity import dependency on Russia appeared less significant due to the newly available interconnectors and the interconnection capacity that could be expected in the nearer future. Studying the Lithuanian energy discourse, the course of relevant events, and data from the energy system, our interpretation is that after 2015/2016 the perception of renewable energy could change because of a high enough degree of energy independence having been achieved or secured at that point. Responding positively to external pressures from the EU and under the Paris Agreement to further increase the share of renewables appeared, therefore, less problematic in the eyes of many policymakers. This is particularly apparent when the Lithuanian 2018 strategy is taken

into consideration, which combines the short-term goal of reaching an 'energy-secure state' by 2020, and the long-term objective of reaching an 'energetically sustainable' energy sector with 100 percent of renewables-based domestic electricity production by 2050 (LRS, 2018). Hence, we argue that in order for Lithuania to reach a positive assessment of renewable energy, a point needed to be reached where achieving a high level of energy security was perceived less as an urgent necessity, but as achievable in the near future.

6. Conclusions and outlook

Today, the implementation of renewable energy in Lithuania is making progress. In September 2019, the country announced the first of three planned annual technology-neutral auctions until 2022 (each for 700 GWh of renewables generation capacity), offering a 12-year priority to the grid and feed-in premiums. The winner of the first auction, onshore wind farm, won with a bid of 0 EUR/Mwh, which was revolutionary as it showed that renewable sector development has reached a stage where it can freely compete without state support. In addition, the Energy Ministry expects growth in the segment of prosumers by offering a one-time compensation for PV installations and opportunity to feed the electricity produced into the grid to later cover their household needs. The development of solar power is still lagging behind, but the Lithuanian case may turn into an example of renewable energy effectively being a solution to energy security – but only once basic requirements

By focusing on the subjective perception of energy security, we could show how the Lithuanian energy security discourse evolved between 2009 and 2019. We have showed that energy security perceptions played a significant role in shaping energy policy. Energy independence as a key condition for energy security was the dominant narrative in the political energy discourses in the last decade. Energy dependence on Russia was perceived as a major (even existential) threat to Lithuania as a sovereign state, its economy and consumers. Several counter measures were adopted to balance that threat, for example integration with the European grid market, natural gas supply diversification, and increasing domestic power production. For the main part of the examined time period, the construction of a nuclear power plant represented the main response to the perceived energy security threats. To some degree, this measure involved political power struggles between pro-nuclear and anti-nuclear discourse coalitions (during 2009-2012). However, the latter remained relatively weak and did not offer a consistent alternative to building a nuclear power plant.

Hence, a very strong focus on nuclear energy is noticeable during this time period. Consequently, renewable energy was only to a very small extent part of the counter measures. However, after a contested period of debates, in 2015/2016 renewables suddenly emerged as a serious objective for development and became the basis of the 2018 national energy security strategy. The turning point in the discourse can be explained by a de facto change in Lithuania's energy security situation. After Lithuania connected to the European power system, the relevant stakeholders gained confidence in renewables as major contributors to energy security. In other words, the material changes in the energy system created a new political energy reality for the major part of Lithuania's energy stakeholders, experts and policy-makers, thereby opening the window of opportunity for the new policy for renewables. Until that point, energy was a strongly securitized issue in Lithuania due to the low domestic supply and the difficult geopolitical environment.

The identified turning point hence marks a (partial) de-securitization of energy-related issues. This can be understood as a normalization of decision-making processes, leading to a much-reduced emphasis on the perceived need for extraordinary measures. We assume that it was overcoming the identified turning point, the move from one energy geography into the other, which opened the room for streamlining Lithuania's energy security strategy with EU policies and the goals of the Paris Agreement. In the case of Lithuania, energy security hence

 $^{^{8}}$ The construction of the interconnector was met with interference by Russian ships.

⁹ Two to three billion cubic metres were expected to be degasified annually, providing almost the entire annual volume of natural gas to be consumed in Lithuania (ICF, 2015, p. 3).

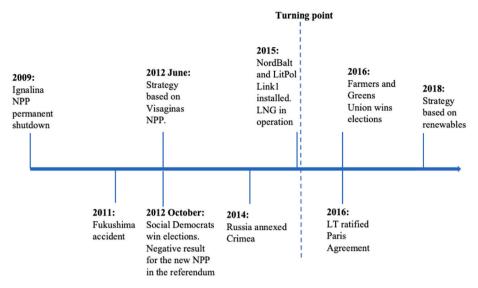


Fig. 5. Summary of key event, 2009-2018.

represents an important factor in explaining the country's switch to a fully renewable-based energy strategy. But its contribution to the turn is indirect or even negative. Only *after* basic energy security-needs were met could renewable energy find its way to the center of the national renewable energy strategy.

These findings have implications for the wider European context and beyond. First, they highlight the significance of security regions for the development of renewable energy (Buzan & Wæver, 2003, p. 41). Proximity to geopolitical hotspots (in Europe, typically Russia) increases the salience of autonomy- and security-related issues (Sattich & Jackson Inderberg, 2018:506). Second, they indicate that regions marked by geopolitical tensions and energy insecurities may encounter difficulties with providing renewable energy with the necessary room in the political discourse. Due to the strong effects of securitization on politics, other options may override a renewables strategy. Third, international agreements and policies may have little effect where they do not directly contribute to lowering the (perceived) energy security threats or contribute to the (perceived) energy supply situation.

Our findings confirm that the divergent energy security perceptions among securitizing actors throughout the EU contributed to the formation of two very approximate clusters of countries: those that focus on renewable energy, and those that perceive renewables as too volatile and expensive (De la Esperanza Mata Pérez et al., 2019). In the case of Lithuania, this closed the door for renewables for a while; nuclear energy was given preference over renewables until Lithuania's place in the regional energy geography had been altered.

Given the limitations of a single case study, a comparison across cases may help to systematically highlight cross-country differences. Also, a closer examination of the link between the geographies of (de-) securitization and processes on the level of social psychology might be desirable. In particular, this concerns the perceptions of energy security and their significance for deployment or non-deployment of renewable energy. In that regard, the interplay between regional conflict settings as well as the material and social determinants of energy security perceptions (Fischhendler et al., 2021; Leonavičius et al., 2018) represent an important area for future research.

Beyond this, the Russian invasion of Ukraine is currently producing a remarkable change in the geography of (de-)securitization. In particular, this concerns Europe, specifically Germany. Over the course of a few days, the perception of what is considered energy secure has shifted dramatically. These processes indicate that Lithuania was not an energy island after all – rather one of its most vulnerable parts. Simply put: in view of the Russian invasion of Ukraine, large parts of Europe find

themselves on an energy island, exposed to a dominant supplier. Based on prior measures, Lithuania could announce in April 2022 that it is the first EU member state to stop importing Russian gas (Euractiv, 2022). Other countries in Europe will presumably attempt to follow this example (Sattich et al., 2022). With our findings in mind, it can be expected that in the medium run renewables will be a significant part of the response.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.polgeo.2022.102656.

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