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**The European Union's Efforts Regarding Renewable Energies and the
Common Foreign and Security Policy**

Ph.D. Dissertation

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Formulating the scientific problem

On the EU's agenda, renewable energy sources have been present for a long time, but their presence is mostly interpreted at the level of discourse, despite numerous advances in their integration. However, the economic environment and resulting interests have consistently constrained these efforts, often resorting to gas supplies from the Russian Federation as a solution. The European and global energy crises have presented significant challenges to the EU and its member states, requiring them to maintain their energy security and, after several decades, to eliminate or at least reduce their energy dependency.¹

The EU is committed to combating climate change and considers the widespread adoption of renewable energy sources as a critically important tool in this effort.² The energies produced in Europe, including renewable energies, also serve as a means to reduce the EU's energy dependency by promoting diversification.³ Diversification of energy sources and the widespread use of renewable energy sources are also considered tools for managing crises, but there is still a great deal of uncertainty regarding which strategy should be employed to successfully integrate primarily weather-dependent renewable energy sources into the energy mix while simultaneously maintaining energy security.

A global geopolitical reordering has begun, with one significant driver being the transition from fossil fuel-based economies to low-carbon emissions economies.⁴ The EU is striving to strike a balance in the global fight against climate change, navigating between its leadership role with associated values, ambitious commitments, and exemplary policy directions, while ensuring business as usual. In addition to showing the world a path in climate protection, realpolitik decisions continue to necessitate ensuring supply, economic, and societal security.⁵

The comprehensive aim of this dissertation is to examine the discourses surrounding the penetration of renewable energy sources within the EU, the strategies employed by the EU in addressing energy security challenges, and the role assigned to renewable energy sources within this context. Within the framework of the Common Foreign and Security Policy, I assess the geopolitical consequences of transitioning to renewable energies and the EU's role and challenges as a leader in the global fight against climate change.

¹ European Commission, REPowerEU Plan COM/2022/230 final.

² Európai Bizottság, Az Európai Zöld Megállapodás COM/2019/640 (2019. december 11.).

³ Európai Bizottság, „Európai energiabiztonsági stratégia. COM(2014) 0330. Európai Bizottság, 2014. május 28.”

⁴ Európai Tanács, „Az éghajlatváltozásról szóló Párizsi Megállapodás”.

⁵ Lazard, „The EU's Much-Flaunted Climate Leadership Is Full of Loopholes”.

Research objectives

O1. To examine the discourse within the EU regarding the relationship between renewable energy sources and the Common Foreign and Security Policy, tracing its evolution through the development of energy policy

O2. To investigate how the EU's energy security perception has evolved in the context of changing perceptions of Russian energy import dependency, and how this change has influenced the spread of renewable energy sources.

O3. To examine how the EU employs the concept of securitization to support the integration of renewable energy sources.

O4. To explore how the EU utilizes its influence through the Common Foreign and Security Policy to position itself as a leader in the global fight against climate change.

Hypotheses

H1. For a long time, there existed a one-way relationship between renewable energy sources and the Common Foreign and Security Policy, in which energy policy led the way, while security policy passively followed.

H2. The EU's energy security perception has shifted with changing perceptions of Russian energy import dependency, bringing renewable energy sources to the forefront.

H3. In the case of the EU, the concept of securitization can only be partially applied to the integration of renewable energy sources.

H4. To strengthen its influence through the Common Foreign and Security Policy, the EU positions itself as a leader in the global fight against climate change.

Research methods

The defining theory of the dissertation's analytical framework is constructivism, which places the role of ideas, norms, and values that manifest through linguistic tools at the forefront, in contrast to the frequently examined geopolitical structures in the study of international relations.⁶ Beyond sharing information, this also implies that societal interactions are formed

⁶ Fierke, „Links across the Abyss”.

along the lines of these linguistic tools.⁷ The sectoral theory of the Copenhagen School of Security Studies, as well as securitization theory, is built upon the constructivist theory of international relations. In this context, the definition of security plays a pivotal role, as security is an intersubjective content that is constructed based on the actors within the security discourse and the surrounding context.⁸ Thus, language and the way in which it is expressed, influence how this construction takes shape and precisely what content is attributed to the concept of security.

From a methodological perspective, this emphasis on linguistic tools entails the application of the conceptual framework of discourse analysis, leading to the achievement of the research objectives set forth. Therefore, in the dissertation, I utilize the methodology of document analysis along with qualitative tools to examine the discourse surrounding the spread of renewable energy sources. Furthermore, discourse analysis allows for the examination of the social context.⁹

Within the methodology of discourse analysis, I conduct content analysis of documents,¹⁰ which is “*a systematic procedure for reviewing or evaluating documents*”.¹¹ In this sense, document analysis can be applied to primary research, such as interpreting policy and strategy documents issued by EU institutions by contextualizing them, as well as to secondary research, such as conducting content analysis of academic publications to examine changes in a particular concept. Methodologically, document analysis does not prescribe mandatory rules.¹²

Given that my research spans a longer period, I employ the methodology of discourse tracing, which combines discourse analysis with process tracing. This approach allows me to track how the discourse surrounding renewable energy sources has developed over the examined time frame.¹³ Discourse tracing consists of four consecutive phases: research planning, data collection, analysis, and evaluation. The first phase, research planning, encompasses defining and preparing the research content, as well as reviewing the relevant literature. The second phase is data collection, which includes selecting appropriate and necessary information and organizing and interpreting the data chronologically. In the third phase, analysis takes place,

⁷ Onuf, *World of Our Making: Rules and Rule in Social Theory and International Relations*.

⁸ Gazdag Ferenc és Tóth Péter, „A biztonság fogalmának határaitól”.

⁹ Jakusné Harnos Éva, „A dokumentumelemzés módszertana”.

¹⁰ Babbie, „Tartalomelemzés”.

¹¹ Bowen, „Document Analysis as a Qualitative Research Method”, 27.

¹² Jakusné Harnos Éva, „A dokumentumelemzés módszertana”.

¹³ LeGreco és Tracy, „Discourse Tracing as Qualitative Practice”, 1517.

resulting in structured answers to research questions, including the writing of case studies. Finally, the fourth phase is evaluation, which deals with theoretical and practical conclusions drawn from the research. Overall, throughout the four phases, the focus is on the formation and interpretation of discursive practices at various levels.¹⁴

In EU documents, the concept that renewable energy can be a tool for diversification first appeared in 1981, and by 2023, the EU has reached the declared goal of increasing the share of renewable energy sources and accelerating their adoption, thereby simultaneously fulfilling multiple policy objectives.

In preparing the analysis, I heavily rely on primary sources in accordance with the methodology of discourse tracing.¹⁵ Due to the EU's values and its commitment to transparency, there is the opportunity to conduct research based on highly organized and accessible, extensive information. For the analysis, I utilize official policy proposals, reports, resolutions, and other strategic documents from the European Commission, the European Council, and the European Parliament, focusing on those that mark pivotal moments in energy policy and the Common Foreign and Security Policy. I examine these documents from the perspective of the EU's energy security perception and renewable energy sources

Following the rules of content analysis, I examine the changes in the EU's security perception as they manifest in the discourse. On one hand, I track what the same source communicates about a topic over an extended period by following statements from EU institutions. On the other hand, I analyze the communication on the same topic from multiple sources by relying on secondary sources. To gain insight into the background and consequences of EU decisions, as well as to track the transformation of security thinking, I utilize academic sources and occasionally references from mainstream media, speeches, analyses, and opinion pieces. In following the discourse, I examine how the areas outlined in strategic documents are reflected in security thinking, with a specific focus on energy security and renewable energy sources.

To support the analysis criteria, I examine the positions represented by EU institutions at specific points in time, building on statements and press releases immediately preceding and following the publication of key strategic documents. I follow a similar approach when examining official EU reactions to events that are of significance for the analysis. To monitor changes in the EU's security perception, I analyze the official statements and press releases

¹⁴ LeGreco és Tracy, 1522–23.

¹⁵ LeGreco és Tracy, 1524–25.

published on the websites of EU institutions, primarily those of the leading officials of the European Commission. The research is based on a total of 149 primary sources and utilizes 272 secondary sources.

A detailed examination of discourse sheds light on the tools that have shaped the framing of renewable energy sources and how the securitization process has influenced the course of events.

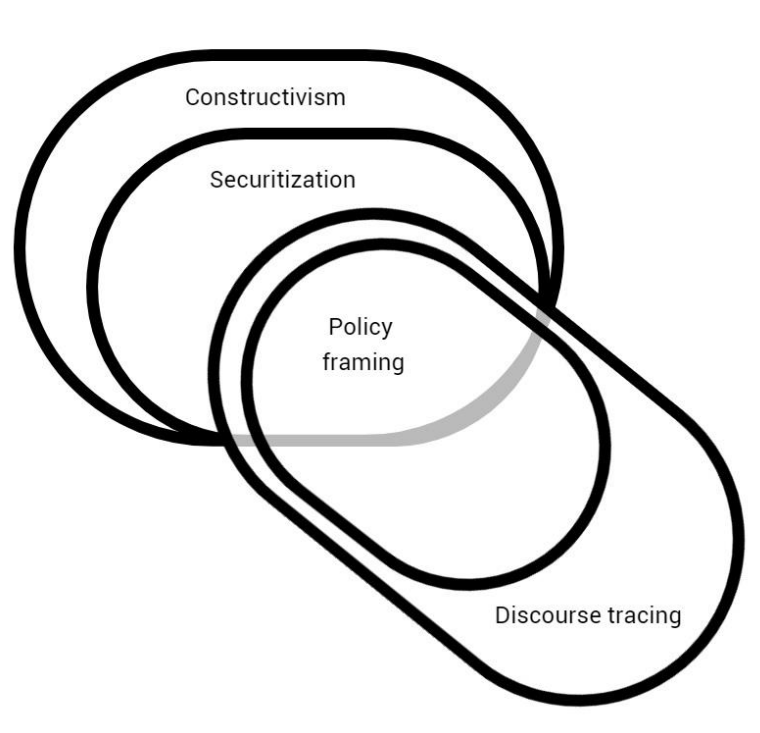


Figure 1: Outline of the dissertation's methodological framework
Source: Compiled by the author

The application of the securitization theory consistently emerges during the examined period, which appears justified due to changes in the EU's security environment. Based on both primary and secondary sources, I assess the alignment with the theoretical frameworks of securitization according to the Copenhagen School,¹⁶ I review whether the criticisms of the theory are valid,¹⁷ I correlate the components of securitization with the criteria of energy security.¹⁸

I introduce framing as a concept in the discourse analysis, which can also serve as a tool for securitization. Framing occurs when a political issue is given a security framing, i.e., it creates

¹⁶ Buzan, Wæver, és De Wilde, *A New Framework For Analysis*, 23–26.

¹⁷ Heinrich és Szulecki, „Energy Securitisation: Applying the Copenhagen School's Framework to Energy”.

¹⁸ Szulecki, „Securitization and State Encroachment on the Energy Sector”.

an intersubjective meaning-making process that establishes a security-focused mindset and shapes the perception of the nature of the problem and the steps taken to address it.¹⁹ Framing also fits within the linguistic toolkit associated with constructivism, but it can also emphasize the process of securitization (Figure 1). Within this context, I apply policy framing, which deals with the interpretation of specific policies, creating an intersubjective reality that ultimately lays the foundations for action.²⁰

My research focuses on policy analysis, starting from energy policy and extending to the realm of Common Foreign and Security Policy, while tracking the regulatory environment of renewable energy sources. At various points, I also delve into climate policy-related issues, with the specific intent of aiding the examination of the role of renewable energy sources. Additionally, I address questions related to economics and natural sciences, given the interdisciplinary nature of the research topic.

To understand the EU's efforts regarding renewable energy sources, I provide an overview of the key processes related to the energy transition and highlight specific member states. In the case of member state models, I examine how they shape their energy mix based on various criteria, the role renewable energy sources play in energy security, and, more importantly, I focus on how renewable energy sources influence the directions of security policy. In the case of Poland, despite its efforts to achieve energy independence,²¹ plans to phase out coal²² by developing nuclear energy,²³ with limited consideration for renewable energy sources.²⁴ Germany's commitment to renewable energy sources is exemplary;²⁵ however, it has become heavily reliant on Russian natural gas imports.²⁶ In contrast, Denmark began implementing energy policies aimed at achieving energy independence following the 1973 oil crisis.²⁷ In response to the challenges posed by climate change and energy security, it turned to renewable energy sources and now plays a leading role in the energy transition.²⁸

¹⁹ Stepka, „Securitisation as the Work of Framing”, 34.

²⁰ Stepka, 35–36.

²¹ Siddi, „Identities and Vulnerabilities: The Ukraine Crisis and the Securitisation of the EU-Russia Gas Trade”, 264–65.

²² Eurostat, „Coal Production and Consumption Statistics”.

²³ Kosc, „Poland Gives Details on \$20B Nuclear Power Bid”.

²⁴ Ember, „Poland | Electricity Transition”.

²⁵ Wettengel, „Renewables Covered More than Half of German Electricity Consumption in First Half of 2023”.

²⁶ Wettengel, „Nord Stream 2 – Symbol of Failed German Bet on Russian Gas”.

²⁷ Danish Energy Agency, „The Danish Energy Model”.

²⁸ International Energy Agency, „Denmark - Countries & Regions”.

The period of the EU's expansion of renewable energy sources represents the primary time interval under scrutiny, and I also present how various processes led to shifts in the EU's energy policy, climate policy, and subsequently its foreign and security policies. Since the formation of the EU itself is rooted in energy policy, I review the history of its development from the very beginning, starting with the signing of the Paris Treaty in 1951, with a focus on the emergence and changing role of renewable energy sources. After narrowing down the timeframe, my further examination follows the shifts outlined in strategic documents and be linked to significant events. Based on these sources of data collection, I analyze the evolution of discourse from the 2000s until the conclusion of the research in February 2023, one year after the Russian Federation initiated a war against Ukraine.

Concise description of the study carried out, chapter by chapter

The first chapter of the dissertation is the introduction, and the second chapter provides a literature review, with particular emphasis on the concept of energy security and its interpretation within the context of the European Union. It also extensively addresses the topic of renewable energy sources, reviewing the literature from both the perspectives of energy security and the international system.

The third chapter of the dissertation discusses theories related to the EU's international role and energy policy. The theoretical framework for the analysis is primarily drawn from the field of international relations, with a focus on constructivism. However, it also explores other approaches related to energy policy, renewable energy, and energy security. It is important to note that the EU's establishment and development have generated significant theoretical work, leading to the incorporation of various smaller conceptual frameworks to aid the analysis. Furthermore, a critical aspect is the application of linguistic tools, particularly within the constructivist framework and the Copenhagen School's sectoral theory, to understand complex processes. The concepts of securitization, discourse analysis, and policy framing all rely on linguistic tools, forming the basis of the research.

The fourth chapter of the dissertation provides an overview of the EU's energy policy and the history of the energy transition. It examines how the content of energy security has evolved and parallels this with the development of Common Foreign and Security Policy. This chapter places special emphasis on the emergence and role of renewable energy sources. The advent of climate change has introduced new considerations into EU energy policy. As a result,

renewable energy sources have become integral to multiple policy areas, influencing significant developments in both energy security and climate policy. The chapter seeks to answer how the discourse surrounding renewable energy sources and common foreign and security policy has evolved through the lens of energy policy.

The fifth chapter of the dissertation examines the changing role of energy and the evolution of the EU's energy security perceptions within the context of the Common Foreign and Security Policy, with a specific focus on crises stemming from energy import dependencies. It particularly delves into the transit disputes in 2006 and 2009, the Crimea crisis in 2014, and the Russian Federation's war against Ukraine in 2022. It demonstrates how the relationship between energy policy and the Common Foreign and Security Policy goes beyond the fundamental principles outlined in strategic documents, and how it manifests in security thinking; the transformation of energy security and perceptions of energy-related security leads to what changes in the security discourse; what framing leads to policy changes; and how do renewable energy sources connect to these processes. It also delves into the interrelationships between renewable energy sources and the internal security of the EU.

The sixth chapter of the dissertation seeks to answer how the EU positions itself in the context of global climate change, building upon renewable energy sources, and how it leverages its leadership role in the global fight against climate change to achieve foreign and security policy objectives. Thus, the research specifically does not focus on climate policy but rather demonstrates how renewable energy sources have evolved from being tools primarily in energy and climate diplomacy to becoming instruments within the framework of common foreign and security policy in the fight against climate change. First, I examine how the energy transition reshapes global power dynamics, then I overview the role of the EU in the changing global environment, continuing to focus on the themes of energy security and renewable energy sources, and then, I address the expected global consequences of the energy transition and the spread of renewable energy sources from a peace and security perspective. Finally, I examine the consequences of the global energy crisis for the relevance of the research theme and provide an overview of the challenges facing the Common Foreign and Security Policy in the fight against climate change.

The seventh chapter presents the processes that are influential in shaping national policy frameworks concerning the energy transition, integration of renewable energy sources, and energy security. Through examples from member states, different models stemming from

diverse interests regarding the role of renewable energy sources in ensuring energy security become evident.

The eighth chapter concludes the research with summarized findings and conclusions, evaluating the hypotheses, presenting new scientific insights, and providing recommendations.

Summarised conclusions

Overall, the analytical frameworks of the dissertation aligned well with achieving the research objectives. Utilizing the linguistic tools provided by constructivism, I examined the case of the EU to explore the evolution of the role of renewable energy sources and associated perceptions through the lens of the concept of energy security.

The definition of energy security by Aleh Cherp and Jessica Jewell, which states that energy security is: “*low vulnerability of vital energy systems*”,²⁹ has proven to be suitable for interpreting renewable energy sources and the energy transition; it opens up social, political, and scientific platforms for the exploration of individual energy systems and their vulnerabilities. It’s also important to note in the case of the EU that the meaning of energy security greatly depends on the specific context of interpretation. In its energy security efforts, the EU often associates security with diversification, which can be attributed to its high level of import dependency.

From the historical overview of EU energy policy and the energy transition, it is evident that renewable energy sources first appeared in EU documents in 1981, primarily as a means of diversification. The issue of import dependency had already been on the agenda of EU energy policy since the 1960s, while climate change was not yet a significant consideration during that period. From the 2000s onwards, a broader interpretation of energy security began to appear in EU energy policy, encompassing the use of renewable energy sources and energy efficiency, and addressing climate policy objectives. In contrast, earlier European interpretations of energy security were more aligned with supply security.

The turning point in the EU’s support for renewable energy sources can be traced back to the Green Paper issued by the Commission in 2006. This was the first comprehensive EU-level energy policy document that addressed the three fundamental pillars of supply security,

²⁹ Cherp és Jewell, „The Concept of Energy Security”.

competitiveness, and environmental sustainability, and it also served as a preparatory step for the energy policy actions in the following years. Furthermore, the Green Paper can be seen as a European shift towards renewable energy sources, highlighting the risks associated with dependence on unstable regions in addition to import dependency. In the Lisbon Treaty, signed in 2007, energy policy received a separate chapter. Also in 2007, the European Parliament published a resolution emphasizing the vital importance of the EU continuing to take a leading role in the global fight against climate change, which includes integrating renewable energy technologies into EU external relations.

The Renewable Energy Directive, which came into effect in 2009, can be considered a particularly innovative policy step. It was the first EU directive to impose binding targets on member states for the share of renewable energy in their energy mix. It also encouraged innovation and investments in renewable energy technologies within the EU through ambitious goals.

In the mid-2000s, sustainability and climate protection became prominently featured in EU energy policy. The policy was built on the premise that renewable energies would rapidly become competitive alongside increasingly expensive fossil energy sources. Energy policy reforms were initiated with the aim of achieving lower energy prices, which could reduce import dependence, enhance energy security, and contribute to the global fight against climate change.

The Commission characterized dependence on imports from the Russian Federation as positive in the early 2000s, but the perception of gas supply security took a turn after the gas supply disruptions in 2006 and 2009. These events redirected attention towards energy security. As a result of the crisis, progress was made in the integration of the internal market to improve gas supply security. However, this integration did not extend to the external relations of the member states. Some member states opposed further EU-level energy security measures, and as a result, there was no common energy security and energy foreign policy strategy. Renewable energy sources were not included in the responses to energy security challenges. In the Commission's interpretation, however, reliability, the component of energy security definitions disappeared from EU-Russian energy relations, which also signifies a change in security perception.

The global financial crisis and the shale oil and gas revolution in the United States posed unexpected obstacles to the expansion of renewable energy sources, altering the international

market and security environment. This led to an increase in the prices of renewable energy sources and energy efficiency solutions. The integration of renewable energy sources thus shifted from being primarily a climate and environmental issue to an economic one. Once the EU made the decision regarding its ambitious commitments and the necessary policy measures, there was no turning back.

In 2014, the Russian Federation annexed the Crimean Peninsula, prompting the EU to formulate an energy security strategy that now addresses the role of renewable energy sources in the energy mix. It treats them as tools for reducing import dependence and combating climate change. The strategy also represents a clear shift in direction in the EU's relations with the Russian Federation. However, the Russian Federation's new role in EU strategic documents has not received a unified assessment. In 2014, the energy security strategy openly questioned its reliability, and by 2015, the Energy Union strategy became notably cautious. Therefore, the focus on ensuring energy security continued to center on gas supply. Some member states viewed their interdependence with Russian energy imports as a necessity, while others saw it as an easily accessible opportunity to obtain cheap energy.

Around 2011, there was a shift in the Commission's energy policy regarding the role of natural gas. This is when renewable energy sources, energy efficiency, and electrification began to take center stage. The Commission had to balance energy supply security with the greening of the energy sector. After the establishment of the Paris Agreement, it became clear that investments in natural gas infrastructure might not necessarily be profitable anymore, as the Commission no longer saw natural gas as a tool for the energy transition. The role of natural gas in the energy mix was primarily relegated to ensuring supply security, but long-term planning focused on its phased-out, with the intention of replacing it with low-emission and climate-friendly energy sources, such as hydrogen or biomethane.

After 2015, there was a shift in security perception, and the deepening of integration became the response to energy policy and energy security issues. Energy and climate policies became increasingly interconnected, with a primary focus on supporting renewable energy sources. This was seen as a key to the success of the Energy Union. The establishment of harmony between member states and EU institutions in energy policy was significantly hindered by the vulnerability resulting from member states' energy dependency. This vulnerability manifested itself in different energy mixes, energy import dependencies, and diversification efforts. As a

result, energy security became one of the priorities in the EU's external relations for the Commission.

The European Green Deal, introduced in 2019 as a climate protection strategy, continues to shape relevant EU policies with the aim of making the EU climate-neutral by 2050. The European Green Deal extends far beyond the EU's economy, bringing about fundamental changes in the Union's relationships with its trading partners. As a result, it has become an integral part of the EU's foreign policy.

In February 2022, the Russian Federation launched an attack on Ukraine, and it used the EU's energy dependency as an economic and political weapon against the EU. As a result of this energy crisis, the EU has expedited decision-making and is seeking solutions to rapidly reduce its dependence on Russian fossil fuel sources while accelerating the energy transition process. The war has marked a turning point by shifting the issue of Russian energy import dependence from the energy policy agenda to foreign and security policy. It drew attention to how fossil fuels have made the EU vulnerable. For the first time, renewable energy sources were introduced as tools for independence and the acceleration of the energy transition. In response to the war, a separate strategy was developed as part of REPowerEU for the EU's external energy engagement. This strategy links energy security with the global energy transition through energy foreign policy and energy diplomacy.

The EU was not caught unprepared in terms of policies related to the integration of renewable energy sources by the war. Although the securitization tool was considered, the EU did not resort to it. The development of policies supporting the growth of renewable energy sources has been ongoing since 2006, so there was no need for securitization even when the security environment changed due to a wartime situation and the discourse became securitized. The Commission, through the positive framing of renewable energy sources and consistent representation of the narrative, prepared the necessary support to achieve its goals.

The process reveals that the Commission directly communicates with EU citizens to ensure that its narratives and messages reach everyone. This long-term approach allows it to gain societal support for its policy objectives, thus EU citizens can then hold their national decision-makers accountable for implementing the goals set at the EU level. This process works counter to the direction of securitization. In the case of securitization, consensus among member states should be sought for an issue that is elevated above the normal agenda, taken out of the toolbox of politics, and considered a matter of utmost importance. However, in

energy policy, the chances of achieving consensus are relatively low, given the crucial role of consensus in EU decision-making. Therefore, efforts are made to avoid conflicts. With policy framing, it's possible to simultaneously address decision-makers, the professional target audience, and the general public. This involves a broader segment of society in the intersubjective reality, and without resorting to the securitization tool, a process can start from the bottom up, leading towards interaction, action, or gaining societal support. Overall, shaping the discourse itself contributes to creating a political environment in which the necessary support for policy steps can be generated.

Ensuring energy security is no longer sufficient with the toolset developed in response to the oil crises of the 1970s. Today, addressing climate change must also be a priority in resolving energy crises, necessitating a new policy approach. The war launched by the Russian Federation against Ukraine has triggered the first truly global energy crisis, which, however, has provided unprecedented momentum for the expansion of renewable energy sources and the adoption of new technologies. The competitiveness of solar and wind energy has been further improved, particularly as the prices of fossil fuels have risen. Currently, energy investments are not reaching the desired level, neither in renewable nor traditional energy sources. Therefore, there may be a need for government intervention to incentivize the private sector to finance the development of infrastructure necessary for ensuring energy security.

The EU's strategic shift in the early 2010s, demonstrated through its new and ambitious engagement in climate diplomacy within the framework of the UN and through bilateral relationships, represents a conscious response to the changing global environment. This response is not limited to climate policy but also extends to geopolitics. The spread of renewable energy sources fundamentally reshapes geopolitical relations as the dynamics of energy transition challenge the status quo built on fossil fuels. Those who adapt to the transformation emerge as winners, while others may find themselves on the losing end.

The period of energy transition significantly deviates from the envisioned system resulting from achieving a low-carbon economy. The EU must also prepare for the fact that the path towards ambitious climate goals and energy security may not always fully align with energy security considerations, even if only temporarily. A crisis situation can create circumstances where ensuring necessary energy supply takes precedence over environmental concerns. However, this can be avoided because as the energy transition progresses, hindering efforts to combat climate change due to insufficient attention to energy security is counterproductive.

Nevertheless, reducing greenhouse gas emissions does not necessarily equate to improved energy security, and vice versa. Improving energy security does not necessarily lead to a reduction in greenhouse gas emissions.

At present, it is not entirely clear how renewable energy sources will precisely impact global peace and security. During the transition process, there are concerns that access to raw materials for renewable energy technologies and the integration of renewables may lead to renewed conflicts among those who perceive these factors as significant risks. Proponents of reduced conflicts argue that domestically produced energy resources reduce the likelihood of conflicts between states. For the EU, replacing fossil fuels and transitioning to renewable energy sources brings significant economic and societal benefits.

Through the example of EU member states, it becomes evident that the path to achieving energy security is perceived very differently, as the analysis has also shown in the case of the EU. Energy policy and security policy are evolving independently within member states. The integration of renewable energy sources poses such a burden for them that they are forced to implement intermediate steps on the path towards energy transition, such as the commissioning of coal-fired power plants, which is the case with Germany, a country truly committed to it, despite the high carbon dioxide emissions.

From the EU's perspective, it is crucial to collaborate with those countries from which it sources fossil fuels because it is expected that the major oil-exporting nations will be the most adversely affected by the transformation. Saudi Arabia and the Russian Federation are typically cited as examples. While Saudi Arabia is preparing to diversify its economy, the Russian economy is not ready to undergo the necessary reforms to transform its fossil energy-dependent economy. Without modernization, Russia could lose its position as an energy power, regardless of the outcome of the conflict in Ukraine.

As a result of the energy transition and the emerging new geopolitical dynamics, the EU has set the goal of becoming the first climate-neutral continent by 2050. This reinforces its ambition to take a global leadership role in the fight against climate change, renewable energy technologies, and innovation. These efforts will increase its international influence, secure its role as an energy power, and contribute to improving energy security.

The academic literature does not provide a definitive answer as to whether the EU has truly succeeded in acquiring a global leadership role in combating climate change. However, this is

not the decisive factor in achieving the EU's goals. The EU self-positions itself for this role, framing its international activities in the field and its ambition within the global climate protection regime. This ensures that, in a changing global environment where power dynamics are fundamentally shifting, it continues to be viewed as a partner.

To achieve its goals, the EU needs to establish new partnerships to ensure access to green technologies and critical raw materials for phasing out fossil fuels, without falling into new import dependencies during the development of new supply chains. Among the new challenges, the development of electricity grids brings about a shift in the significance of issues such as digitalization, cyber security, and artificial intelligence. Due to the application of 21st-century technologies, this affects not only renewable energy sources but also the majority of energy production and distribution.

New scientific results

1. I have conducted a comprehensive analysis in Hungarian within the field of international security studies on the topic of renewable energy sources and energy security. The growth of renewable energy sources is a pivotal process in the coming decades, and it directly impacts and influences various dimensions of security. The role of the EU in the global fight against climate change, particularly in the extensive adoption of renewable energy sources, serves as an exemplary model. However, as the dissertation highlights, there are still challenges that require the application of scientific tools, especially through interdisciplinary approaches, to find solutions.
2. In the dissertation, I have demonstrated that there was a long-standing one-way relationship between renewable energy sources and the Common Foreign and Security Policy, with energy policy taking the lead and security policy passively following. However, this changed with the outbreak of the Russian Federation's war against Ukraine in 2022, marking a turning point. In response to the crisis, the REPowerEU package was introduced, providing a means for transitioning to renewable energy sources as a tool for reducing dependence on Russian fossil fuels. This shift broke the passivity in the Common Foreign and Security Policy.
3. I have argued that the concept of securitization does not fit within the framework of the EU's integration of renewable energy sources, although certain elements of the process do appear in the discourse. In the case of securitization, an issue should be elevated from the realm of regular policy to a matter of utmost concern and consensus should be sought

among member states. However, in the field of energy policy, due to differing national interests, the likelihood of achieving such consensus is extremely low. Instead, the EU shapes the narrative to align with its policy objectives. Through policy framing, it incorporates a broad target audience into the intersubjective reality and gains the necessary support for integrating renewable energy sources into the toolbox of Common Foreign and Security Policy, even when the ongoing conflict in Ukraine could potentially create opportunities for securitization.

4. In the dissertation, I have demonstrated that the EU's perception of energy security has undergone a transformation in light of its assessment of Russian energy import dependency, which has favoured the growth of renewable energy sources. While trust characterized EU-Russian energy relations in the early 2000s, the gas supply disruptions experienced in 2006 and 2009 marked a turning point in security perception. In 2014, the Ukrainian crisis prompted a shift in EU institutional attitudes towards Russian import dependency, and at the discursive level, energy policy began to be closely intertwined with Common Foreign and Security Policy considerations. In 2019, as a result of the European Green Deal, the framing of renewable energy sources gained greater prominence. Beyond the economic context, it began to be linked to innovation, successful external relations, and was referred to as a key player in the fight against climate change. Consequently, it evolved into a tool for global advocacy and influence. In 2022, as a result of the Russian Federation's war against Ukraine, the framing of EU-Russian relations further emphasized the unreliability that emerged during transit disputes. This highlighted a complete transformation in energy security perception and resulted in changes in the EU's energy policy, which had previously relied on import dependence. In response to the crisis, the REPowerEU package was introduced, incorporating the transition to renewable energy sources as a means to achieve independence from Russian fossil fuels. Consequently, this accelerated the energy transition.
5. In the analysis, I have demonstrated that due to the transformation of global power dynamics and the emergence of a multipolar system, the EU has found itself in a new position in its international relations. The economic advantages derived from cheap Russian gas could be replaced by a leading role in the global fight against climate change. Additionally, the EU aims to be a leader in navigating the energy crisis. In response to the challenges of the post-transition period towards a low-carbon economy and the development of green technologies, innovation, and the promotion of fair and sustainable

development, the EU seeks to provide answers and play a leading role within the international community.

Practical use of research results, recommendations

The Hungarian-language literature in the field of international security studies only marginally addresses energy security, and even fewer publications are available regarding the role of renewable energy sources in energy security. Therefore, this research can be applied in education primarily in the field of security studies but can also provide valuable background for international studies, energy policy, and related areas concerning the EU.

The divergent energy and security policy directions of EU member states also manifest in energy security decisions. The member state examples presented in the dissertation can help broaden the perspective of those dealing with other EU domains and contribute to gaining a more comprehensive understanding of both the EU and the functioning of member states.

The examination of various renewable energy sources encompasses technological, resource requirements, geopolitical considerations, mapping interconnectivity, investments, and expertise, offering further opportunities, especially in light of the fact that EU member states have different characteristics and, consequently, different energy security strategies in place. Therefore, it is crucial to be acutely aware of the potential within the energy systems of individual member states. By harmonizing these potentials, not only can we enhance the energy security of both the EU and its member states, but we can also make a substantive contribution to the global fight against climate change. It's important to keep in mind that the integration of renewable energy sources into energy systems is not solely a matter of technical and economic considerations, which are shaped by appropriate policies. The energy transition is an interdisciplinary field, so alongside energy security, it is also essential to research areas related to renewable energy sources, such as social impacts, sustainable transportation and urban development, or healthcare.

The research encompasses a comprehensive set of literature, including a significant number of EU policy documents. It reviews, assesses, and analyzes these documents. In addition to primary sources, the dissertation processes a substantial amount of secondary sources through which it presents the works of researchers who have examined energy security and renewable energy sources in relation to energy security. Consequently, the dissertation can provide a

toolkit for a wide range of individuals interested in policymaking, highlighting the relevance and interdisciplinary nature of the topic

On completion of the analysis, the ongoing war in Ukraine still raises numerous questions, to which adequate answers can only be provided when viewed from an appropriate perspective. The topics that have emerged here can serve as a basis for formulating future conclusions.

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The professional and academic curriculum vitae of the doctoral dissertation submitter

Melinda Zsolt was born in Budapest. After obtaining her high school diploma, she continued her studies at the Hebrew University of Jerusalem, first completing the Academic Preparatory Program, and then studying international relations and political sciences as part of a one-year program. Upon returning to Hungary, she completed her studies in media and communication at Kodolányi János College, earning her diploma in 2005. In 2011, she continued her studies in the master’s program for security and defence policy at the Kossuth Lajos Faculty of Military Sciences at Zrínyi Miklós National Defence University, obtaining her diploma in 2013, by which time it had already become the National University of Public Service. During her master’s program, she focused on the Middle East, specifically Israel’s security and defence policy. The topic of her thesis was the impact of the Arab Spring on Palestinian-Israeli relations.

In 2013, she was admitted to the Doctoral School of Military Sciences at the National University of Public Service. During the first few years, she conducted research on Israel’s security and defence policy. However, due to a career change, her focus shifted towards renewable energy sources, and in 2016, she changed her research topic to examine the European Union’s policies on renewable energy within the context of the Common Foreign and Security Policy.

In 2020-2021, she completed an online micro-master’s program titled "The Economics of the Energy Transition in the European Union" at Delft University of Technology. Within this program, she focused on contemporary energy markets and the future of a decarbonized economy.

During her studies and research, she has authored a total of 16 publications, including 3 in English. She also participated in editing the study collection titled "NATO Partnership" and has worked on topics such as greening the defence sector, the interplay of energy security and geopolitics, energy transition, and Hungary's energy security. She has written a book chapter on the European Union's energy policy and the role of energy security in NATO. In the EU Secure project, she contributed an English-language book chapter on European Union energy security and was involved in creating online educational materials in English.

She gained teaching experience in several courses related to security studies, conducted seminars, and delivered lectures in English on topics such as European Union energy security. She also taught a module on the Middle East in a Regional Security course and a module on Israel and Judaism in a Civilization Studies course. In 2018-2019, she worked as a university assistant lecturer at the National University of Public Service.

Between 2005 and 2010, she worked as a journalist and editor for the current affairs section of the Index.hu news portal, where she covered international political topics. She also independently managed an environmental section and was recognized with the Green Pen Award in 2009. In 2011, she transitioned into a career as a communications professional and held leadership positions in several nonprofit organizations, including the Energiaklub Climate Policy Institute and Applied Communications, as well as the Hungarian Energy Efficiency Institute. In 2013, she received the Hégető Honorka Award for her investigative documentary films that explored societal issues.

Between 2014 and 2017, she ventured into the private sector and served as the Head of Communications for a leading European renewable energy investment company. In this role, she was responsible for the overall communication strategy, including that of the Hungarian subsidiary. In 2016, she directed a 6-part documentary series titled "The Role of European-Made Bioethanol in Climate Protection". Since March 2022, she has been working as a freelance strategic communications expert.

Since 2013, she has been a member of the Hungarian Society of Military Sciences. In the same year, she completed the Euro-Atlantic Summer University program. In 2014, she participated in the Orientation Course on the Common Security and Defence Policy of the European Union organized by the European Security and Defence College in Vienna. Since 2016, she has been involved in voluntary work for the Hungarian Cycling Club, focusing on sustainable urban transportation. From 2019 onwards, she has been participating in various

EU projects related to energy security, such as EUSecure, RenoHUB, and Hi-Smart. Between 2019 and 2022, she pursued a program in social innovation leadership as part of the Tarbut scholarship.

She has advanced proficiency in English and Hebrew languages.