

Energy Security in National Security Strategies: A Multiple Case Study

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Abstract

The aim of the study is to identify energy security issues in the assumptions of national security strategic documents. The study seeks responses to the following research questions: (1) What aspects of energy security are included in national security strategies? (2) Are national security strategies oriented to a comprehensive approach combining the issue of energy security with economic competitiveness and environmental sustainability or to a narrow view of energy security as continuity of energy supplies? A multiple case study analysis of national strategic documents of selected NATO Member States — i.e., the United States, the United Kingdom, France, Germany, and Poland, was employed to achieve the research aim.

Keywords: energy security, national security strategy

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Introduction

Energy security is an important component of economic security within the national security system (Kitler 2019, 13). The International Energy Agency defines energy security as “the uninterrupted availability of energy sources at an affordable price,” differentiating between long-term and short-term energy security. Long-term energy security “mainly deals with timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance”.¹ This dual time perspective is translated in two opposing approaches to analyzing the issue of energy security. On the one hand, some authors—e.g., Ang, Choong, and Ng (2015)—posit that energy security should be considered in a wider context, including economic and environmental aspects, which is manifested in the concept of the “energy trilemma,” introduced by the World Energy Council.² “Energy trilemma is defined as balancing the trade-offs between three major energy goals, namely energy security, economic competitiveness, and environmental sustainability” (Ang, Choong, and Ng 2015, 1090). On the other hand, a narrow approach to defining energy security is supported. For instance, Winzer (2012) suggests “narrowing down the concept of energy security to the concept of energy supply continuity. This reduces the overlap between the policy goals of energy security, sustainability and economic efficiency.” He defines energy security as “the continuity of energy supplies relative to demand.”

1. See: “Energy Security. Reliable, Affordable Access to All Fuels and Energy Sources.” <https://www.iea.org/topics/energy-security> (accessed 2023-12-04).

2. See: “World Energy Trilemma 2012: Time to Get Real – the Case for Sustainable Energy Policy.” Report published by the World Energy Council, in collaboration with global management consulting firm Oliver Wyman, available at <https://www.worldenergy.org/publications/entry/world-energy-trilemma-2012-time-to-get-real-a-the-case-for-sustainable-energy-policy>.

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Traditionally, energy security is characterized by four dimensions/indicators (the so-called 4As)—i.e., (1) availability, (2) accessibility, (3) affordability, and (4) acceptability of energy (Kruijt et al. 2009). Sovacool and Mukherjee (2011) mention five factors to be taken into account while defining energy security: (1) availability, (2) affordability, (3) technology development, (4) sustainability, and (5) regulation. Ang, Choong, and Ng (2015) identify seven major energy security themes, including: (1) energy availability determined by diversification and geopolitical factors, (2) infrastructure (energy transformation and transmission facilities), (3) energy prices determining affordability of energy supplies, (4) societal effects (e.g., energy poverty), (5) sustainability and environmental issues, (6) governance, and (7) energy efficiency.

As observed by Stolberg (2012) “[t]he need for security and the institutionalization of that security in national strategy and its associated documents is becoming a significant concern for nations in the 21st century international system. This need requires the development of national-level strategies that are designed with objectives that, if attained, can ensure the conditions necessary for security for a given actor in the international system can be met.” A national security strategy is defined as “the concept of ensuring the state’s security, including, in particular, the identification of national interests and strategic goals, the assessment of the future development of the strategic security environment and the principles and methods of achieving strategic objectives in the anticipated conditions (determining implementation of operational tasks), as well as the preparation (maintaining and transformation) of the national security system (implementation of preparation tasks).”³ National security strategies are the most comprehensive documents addressing publicly the national security interests of a state. Nevertheless, some other types of strategic documents fulfilling similar objectives are also published in some countries (e.g., white papers or strategic security/defense reviews).

In recent years, strategic management of energy security has been attracting the growing attention of the research community. As of August 10, 2023, the analysis of publications indexed in the Scopus bibliometric database indicates 71 items including the conjunction of phrases “energy security” and “strategy” in their titles. Nevertheless, they are exclusively focused on functional energy strategies or energy security strategies and do not analyze energy security in the wider context of national security strategies. Therefore, the aim of this study is to identify energy security issues in the assumptions of national security strategic documents. The study seeks responses to the following research questions: (1) What aspects of energy security are included in national security strategies? (2) Are national security strategies oriented to a comprehensive approach combining the issue of energy security with economic competitiveness and environmental sustainability or to a narrow view of energy security as continuity of energy supplies?

Analyzing the issue of energy in national security strategies provides an opportunity to recognize and discuss its multidimensional challenges and respective interventions undertaken or planned to be undertaken by the states selected as the units of the present analysis. It is of particular importance nowadays (as of November 2023), in the context of disruptions in the security environment triggered by Russia’s aggression against Ukraine (February 2022) and Hamas terrorist attacks against Israel (October 2023). Instruments of power employed by actors participating in contemporary conflicts and their consequences often go beyond the military domain and include, among others, weaponization of energy. The Russo-Ukrainian war provides illustrative cases of such practices—e.g., Russian weaponization of oil and natural gas supplies, missile attacks against Ukrainian critical infrastructure, or violations of nuclear plants’ security. Simultaneously, decoupling of democratic states from imports of Russian oil and natural gas, considered as an element of economic sanctions, not only poses short-term supply-related challenges but also creates long-term opportunities. Therefore, keeping in mind that energy is one of the most important aspects of states’ security and resilience, energy security issues, explicitly formulated in national security strategies, may be considered as manifestations of energy policies of those states. It is worth mentioning that

3. See: “(MINI)SŁOWNIK BBN: Propozycje nowych terminów z dziedziny bezpieczeństwa” [BBN (MINI) DICTIONARY: Proposals for new terms in the field of security]. Biuro Bezpieczeństwa Narodowego, May 2020, available at <http://katedrawiss.uwm.edu.pl/sites/default/files/download/202005/minislownik-bbn-propozycje-nowych-terminow-z-dziedziny-bezpieczenstwa.pdf>.

in all the five analyzed cases, the states are sovereign in their energy policies. Nevertheless, in regard to France, Germany and Poland, which are the Member States of the European Union, the indirect impact of the EU's climate neutrality policies on their energy security should be considered, which is explained in recommendations for further research. The analysis of energy security issues in the national security strategies of five NATO Member States provides “added value” both for the theory and practice of strategic management of national security. From a theoretical point of view, this study fills the aforementioned “gap in the body of knowledge.” From a practical point of view, it offers a review of interventions planned and introduced in the analyzed states supporting the processes of designing relevant toolboxes to respond to challenges in the energy theme of the security environment.

1 Method of Study

The method of multiple case study analysis was employed to achieve the research aim. On the one hand, the method of multiple case study facilitates deep understanding of particular cases and their context. On the other hand, it offers a possibility of analyzing similarities, differences, and patterns in the analyzed cases and building up a broader picture. Moreover, compared to single case studies, multiple cases enhance the credibility and reliability of the research. The study analyzes the national strategic documents of selected NATO Member States (i.e., the United States, the United Kingdom, France, Germany, and Poland). The research process was designed in accordance with the guidelines recommended in methodology literature (Patton and Appelbaum 2003; Strumińska-Kutra and Kołodkiewicz 2012; Yin 2009) and included the following: (1) defining study questions, (2) selecting the unit of analysis and the sample within the studied case, (3) planning and collecting data, (4) analyzing data, (5) conducting a case study analysis.

The units of analysis were selected in the procedure of purposive sampling. The sampling process was guided by the following pre-defined criteria: (1) the units of analysis are national security strategic documents of democratic countries which vary in regard to their strategic position and the energy security situation, (2) functional-level energy-related strategic documents are excluded, (3) the national security strategic documents selected for analysis are publicly disclosed and available in the English-language version, (4) the documents chosen for analysis were published recently to ensure they respond to recent developments in the security environment.

Desk research was the method used for collecting and processing data. In the process of data collection, all the passages referring to energy security issues—i.e., those mentioning energy-related words, in the analyzed national security strategic documents were included. Truncation, one of advanced wildcard search techniques, was employed to find them. The phrase “energy*” was searched in order to find out all the variable endings of the root word. In the analysis, selected passages of the text were coded in order to identify a variety of energy security aspects included in the documents and then compare and contrast them in regard to the countries under analysis. Moreover, the coding related to objectives/pillars of the analyzed national strategies was employed. The following techniques were implemented in order to improve the quality criteria of the study: (1) construct validity – a review of the research report by key experts in the field, (2) internal validity—a cross-case synthesis of data according to the same pattern in order to analyze the similarities and differences among the cases, (3) external validity—a replication logic of the multiple case study, (4) reliability – a research protocol and database.

2 Results

2.1 United States

The United States National Security Strategy is a document approved by the President of the United States which defines the national interests, major threats and challenges for national security, and the administration's approaches to security issues. The latest strategy was issued by the Biden-Harris administration on October 12, 2022. The 2022 National Security Strategy focuses on

two types of strategic challenges. The first of them is “competition for what comes next” between democracies and autocracies. The second one encompasses a variety of “shared challenges,” which cross borders and require international cooperation to cope with. The catalogue of those shared challenges includes climate and energy security, pandemics and biodefence, food insecurity, arms control and non-proliferation, and terrorism. The strategy also presents the Biden administration’s directions for counteracting the identified challenges.

The 2022 National Security Strategy links directly the issue of energy security with climate change, which is recognized as one of the greatest problems for humanity (an “existential challenge of our time”). As it is expected that countries will intensify the level of competition for resources and energy advantage, the strategy calls for “energy revolution” in order to lower the level of “collective dependence on states like Russia that seek to weaponize energy for coercion.”⁴ The strategy openly mentions a global energy crisis, triggered by Russia’s decision to weaponize its supplies of oil and natural gas. “Responsible global energy transition,” stabilization of energy markets, and employment of innovative energy technologies are regarded as remedies to the current situation in the energy market.⁵ The strategy recognizes “the urgent need to accelerate the transition from fossil fuels” and assumes “that long term energy security depends on clean energy.”⁶ Therefore, clean energy technologies are among the investment priorities of the industrial and innovation strategy, which is to contribute to an increase in energy security and speed up clean energy transition.⁷ The examples of these measures include investments in energy infrastructure, clean energy technology under the CHIPS and Science Act, reduction of carbon emissions under the National Biotechnology and Biomanufacturing Initiative, and domestic energy production under the Inflation Reduction Act.⁸

The 2022 National Security Strategy highlights the role of integration across domains, including non-military security issues—e.g., energy security, integration across regions, and integration with allies and partners in order to cope with national security challenges.⁹ Thus, collaboration for energy security is greatly appreciated. This collaboration takes place, among others, under the umbrella of such organizations as the International Energy Agency, the US–EU Task Force on European Energy Security, the Clean Energy Ministerial and Mission Innovation, Power Africa, the Eastern Mediterranean Gas Forum, and the Partnership for Transatlantic Energy and Climate Cooperation. Increasing energy stability by encouraging energy producers in the Middle East to contribute to stabilization of global energy markets¹⁰ and deterrence toward Iran¹¹ are examples of the integration-oriented US strategy aimed at stabilizing energy markets. Reduction of Europe’s dependence on Russian fossils and strengthening European energy security, while simultaneously contributing to achieving climate objectives, is an initiative undertaken by the United States in cooperation with the European Union (US–EU Task Force on European Energy Security). Energy security is also one of the themes of the C5+1 diplomatic platform, promoting cooperation of the United States with Central Asian countries such as Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.¹² Promoting clean energy is often included in the agenda of the initiatives undertaken by the United States in cooperation with international partners—e.g., the Association of South Asia Nations (ASEAN), Indo-Pacific Economic Framework (IPEF), and Prosper Africa Build Together Campaign. The Partnership for Global Infrastructure and Investment (PGII), a program launched by the members of the G7 group, including the United States, aimed at financing infrastructure projects in developing countries, also covers the investments in

4. See: “National Security Strategy.” The White House, Washington, October 2022, available at <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>, page 9.

5. *Ibid.*, page 10.

6. *Ibid.*, page 28.

7. *Ibid.*, pages 11, 15, 33.

8. *Ibid.*, page 15.

9. *Ibid.*, page 22.

10. *Ibid.*, page 43.

11. *Ibid.*, page 18.

12. *Ibid.*, page 39.

energy security.¹³ The United States supports clean energy and energy transition initiatives in North America and South America under the umbrella of the Americas Partnership for Economic Prosperity framework, in Caribbean countries as part of Partnership to Address the Climate Crisis 2030 (PACC),¹⁴ and in Africa under the Power Africa initiative.¹⁵

2.2 United Kingdom

In the United Kingdom, national security strategic issues are expressed in reviews of security, defense, development, and foreign policies. The latest review was issued in 2021.¹⁶ Nevertheless, the volatile changes in the security environment, caused by the Russian Federation's aggression against Ukraine, resulted in an update of the document, officially introduced in 2023,¹⁷ which is an object of analysis in this multiple case study. The strategic framework introduced in the 2023 Integrated Review Refresh focuses on the four following pillars: (1) shaping the international environment to promote “stable international order and protection of the global public goods”, (2) deterring, defending and competing across all domains, (3) addressing vulnerability through resilience, (4) strengthening competitive advantage in a contested world.

Rishi Sunak, the Prime Minister of the United Kingdom, in the foreword to the 2023 Integrated Review Refresh, points out Russia's weaponization of energy in the context of its war of aggression against Ukraine among key recent events in the security environment posing a threat to the world order. He also highlights the importance of energy security for the state's resilience and mentions interventions such as “energy support packages or using the National Security and Investment Act to prevent high-risk investment in critical infrastructure and sensitive technologies.”¹⁸

As highlighted in the 2023 Integrated Review Refresh, strong foundations for the UK's national security were established by the implementation of the preceding strategy—i.e., the 2021 Integrated Review of Security, Defence, Development and Foreign Policy,¹⁹ which was additionally supported with a series of functional strategies, including, among others, the one referring to energy security issues.²⁰ Nevertheless, as noticed in the UK's 2023 Integrated Review Refresh, Europe is experiencing the largest military conflict since World War II, triggered by Russia's aggression, combined with migration and the energy crisis.²¹ The war has led to disruptions in global energy markets and an increase in tensions over access to the sources of energy. In the UK, the energy crisis has resulted in a significant increase in energy prices, which requires the state's intervention under the Energy Price Guarantee and other assistance projects. Transition to clean energy is considered to be a solution, but this transition may also pose challenges and encourage competition related to the access to new technologies and rare minerals.²²

In regard to the first pillar of the strategic review, i.e. shaping the international environment, together with the remaining components of the “energy trilemma”—i.e., climate and nature, as well as sustainable development and the economic order, energy is listed among the priority themes to be included in international cooperation initiatives undertaken by the UK, particularly in the Euro-Atlantic and Indo-Pacific areas. Among the UK's key partnership initiatives for energy security there

13. *Ibid.*, pages 12, 19.

14. *Ibid.*, page 41.

15. *Ibid.*, page 44.

16. See: “Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy.” HM Government, March 2021, available at https://assets.publishing.service.gov.uk/media/60644e4bd3bf7f0c91eababd/Global_Britain_in_a_Competitive_Age_the_Integrated_Review_of_Security_Defence_Development_and_Foreign_Policy.pdf.

17. See: “Integrated Review Refresh 2023: Responding to a More Contested and Volatile World.” HM Government, March 2023, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1145586/11857435_NS_IR_Refresh_2023_Supply_AllPages_Revision_7_WEB_PDF.pdf.

18. *Ibid.*, pages 2–4.

19. See: “Global Britain in a Competitive Age...,” *op. cit.*

20. See: “British Energy Security Strategy. Secure, Clean and Affordable British Energy for the Long Term.” HM Government, April 2022, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1069969/british-energy-security-strategy-web-accessible.pdf.

21. See: “Integrated Review Refresh 2023...,” *op. cit.*, page 7.

22. *Ibid.*, page 10.

are the North Sea Energy Cooperation group (including Belgium, Denmark, European Commission, France, Germany, Ireland, and Luxembourg) and the UK–France Summit. In the Indo-Pacific, cooperation for green energy transition is conducted under the umbrella of such programs as Just Energy Transition Partnerships (with Indonesia and Vietnam) and Climate Action for a Resilient Asia. The strategy points out a significant role played by China, which is the largest emitter of carbon dioxide on the one hand and the leading investor in sustainable energy on the other.²³

In regard to energy security, the second pillar of the strategic review, focused on deterring, defending and competing across all domains, deals with development of the British nuclear energy sector and defining the UK’s strategy on Russia. The strategy recognizes the importance of nuclear energy for the energy security, zero emission policy, economic growth, and technological advancement of the country. Nuclear energy is expected to contribute with 24GW by 2050. The government supports these efforts with investments in Hinkley Point C and Sizewell C projects. The ecosystem of organizations supporting nuclear energy related projects was established, including Great British Nuclear, Future Nuclear Enabling Fund, and Nuclear Fuel Fund.²⁴ Energy is one of the key aspects of the UK’s strategy on Russia. The United Kingdom assumes counteracting the Russian impact in the world by “diminishing its coercive ability and its scope to weaponize . . . energy.”²⁵

Vulnerabilities in energy security are among the priorities for developing the state’s resilience, which constitutes the third pillar of the strategy. The aim of interventions within this area is to “ensure that the UK’s energy supply is less exposed to manipulation by hostile actors and volatility in global markets.” The approaches to achieve the aforesaid aim include “maximising sources of supply in the immediate term, while accelerating the transition to clean energy and net zero—the most effective route to both energy security and . . . climate goals.” The short-term perspective includes the following interventions: reducing dependence on energy supplies (gas, oil, coal) imported from Russia on the national and global scale, increasing diversification and security of supplies, and enhancing international collaboration, in particular with the North Seas Energy Cooperation group, France, the United States, and the Gulf nations (United Arab Emirates, Qatar, and Saudi Arabia). The long-term interventions will be oriented to investment in offshore windmills, low-carbon hydrogen energy, nuclear energy, and advanced energy technologies. The energy security-related efforts are to be coordinated by the newly established Department for Energy Security and Net Zero with the use of the Energy Security Plan and the Net Zero Growth Plan.²⁶ Energy security is to be supported by the efforts focused on the cybersecurity of critical infrastructure.²⁷

The interventions aimed at zero emission and development of green energy are planned to be combined with enhancements for green investments, which will contribute to the fourth pillar of the strategy, aimed at strengthening the UK’s competitive advantage. The positive outcomes of these efforts are expected both within the country (e.g., creating new jobs) and in international relations (intensifying collaboration in renewable energy and strengthening energy security).²⁸

2.3 France

The French national security strategy is expressed in the form of the national strategic review. The latest review was presented by the President of the Republic of France, Emmanuel Macron, on November 9, 2022. An update of the previous review, dated 2021, was needed due to the changes in the security environment triggered by Russia’s aggression against Ukraine. The French 2022 National Strategic Review is focused on achieving ten strategic objectives related to: (1) nuclear deterrence, (2) state’s resilience, (3) economic security, (4) cyber resilience, (5) Euro-Atlantic cooperation, (6) development of European strategic autonomy, (7) international cooperation for security, (8) ensuring autonomy of assessment and decision making, (9) defense in hybrid scenarios, and (10) conduct of military operations.

23. See: “Integrated Review Refresh 2023...,” op. cit., pages 19–22, 25–26, 28, 30.

24. Ibid., pages 35–36.

25. Ibid., page 42.

26. Ibid., pages 46–47.

27. Ibid., page 50.

28. Ibid., page 58.

Energy security is mentioned by President Emmanuel Macron in his foreword to the National Strategic Review among the national security aspects which depend on international arenas.²⁹ Energy supplies are considered as a geostrategic lever leading to competition over access to them. Such a situation, which is of central importance for national resilience,³⁰ is driven by changes of energy suppliers and routes of supplies, because numerous gas and oil terminals and pipelines are located in regions experiencing security tensions.³¹ Thus, protecting energy supplies is listed among the potential missions to be performed by the armed forces.³²

2.4 Germany

Issued on June 14, 2023 by the government of Chancellor Olaf Scholz, the first-ever comprehensive German National Security Strategy, entitled “Integrated Security for Germany,” is focused on three attributes: robustness (“defending peace and freedom”), resilience (“safeguarding values through inner strength”), and sustainability (“safeguarding national resources”). Taking into account the context of the ongoing Russian war of aggression against Ukraine and turbulences on energy markets, energy security is certainly among the issues included in the strategy. The strategy officially states that Russia “is purposely trying to destabilise the democratic societies of Europe, to weaken the EU and NATO, and is pursuing its interests on the international stage with a policy that seeks to undermine international law and human rights.” The manipulative use of energy and raw materials supplies is considered as one tactic employed by Russia to pursue its strategy.³³ The strategy also pays attention to preventing new dependencies and ensuring security of supplies—e.g., those related to new energy sources and renewable energy.³⁴

Maintaining “a secure, sustainable supply of raw materials and energy” is listed among the values of the state.³⁵ Decoupling from dependence on Russian energy supplies is mentioned in forewords to the strategy by both Chancellor Olaf Scholz and the Federal Minister Annalena Baerbock. Ensuring security of energy supplies through international cooperation is recognized as one of the chancellor’s priorities. The minister declares the need for diversification and giving priority to security issues while making economic decisions about sources of supplies and access to investments in critical infrastructure. Similarly, reducing the negative impact of the economy on the environment and climate change is highlighted.³⁶

Energy security issues are discussed as part of the efforts dedicated to strengthening Germany’s resilience. Interventions aimed at reducing the one-sided dependency as well as diversifying and ensuring security of energy supplies are declared.³⁷ These interventions include, among others, the government’s collaboration with business entities and establishing strategic reserves, technological innovations, diversification of supply sources and seeking reliable suppliers, extracting raw materials responsibly and using energy efficiently, implementing the assumptions of the concept of circular economy, taking into account security aspects when deciding about new raw materials extraction projects, strengthening crisis management procedures related to energy security, and promoting a secure and sustainable energy market framework.³⁸ Simultaneously, green energy transformation is considered among the measures taken in order to increase sustainability and, consequently, to mitigate the negative effects on climate on the one hand, and to reduce dependence on energy

29. See: “National Strategic Review 2022.” République Française, Première Ministre, Secrétariat général de la défense et de la sécurité nationale, available in English at <https://www.sgdsn.gouv.fr/files/files/rns-uk-20221202.pdf>, page 3.

30. *Ibid.*, page 24.

31. *Ibid.*, page 15.

32. *Ibid.*, page 52.

33. See: “Robust. Resilient. Sustainable. Integrated Security for Germany. National Security Strategy.” The Federal Government, June 2023, available at <https://www.nationalesicherheitsstrategie.de/National-Security-Strategy-EN.pdf>, page 23.

34. *Ibid.*, page 24.

35. *Ibid.*, page 21.

36. *Ibid.*, pages 5, 7.

37. *Ibid.*, pages 15, 36, 53, 67.

38. *Ibid.*, page 54.

supplies, thus linking sustainability with the country's resilience on the other.³⁹ Investments in critical infrastructure, its protection, and efforts to make this infrastructure more resilient are also listed among Germany's priorities.⁴⁰

2.5 Poland

The 2020 National Security Strategy of the Republic of Poland was approved on May 12, 2020 by the President of the Republic of Poland, Andrzej Duda, upon request of the President of the Council of Ministers. The strategy identifies the four following pillars of national security: (1) security of the state and its citizens, (2) Poland in the international security system, (3) identity and national heritage, (4) social and economic development and environment protection. Continuity of energy supplies and protection of critical energy infrastructure are considered among important aspects of the state's resilience,⁴¹ while energy security is one of the themes of the fourth pillar devoted to social and economic security.⁴²

It should be noted that the strategy was issued before Russia's aggression against Ukraine, which significantly changed energy security in Central and Eastern Europe. Nevertheless, it is worth mentioning that the strategy explicitly and accurately identified threats to Central European and Balkan energy markets related to their dependence on Russian supplies of gas and oil, aggravated by planned Nord Stream 2 activation, leading to the risk of using gas supplies as an instrument of political influence. The situation changed after February 24, 2022, when Poland and other EU Member States made decisions about decoupling from Russian gas and oil supplies. The analysis of the security environment included in the strategy reveals some other challenges faced by Poland in regard to energy security. The first of them is the competitiveness of electricity production in the context of the EU's climate and energy policies aimed at reducing consumption of coal in the electricity production sector. Another challenge is the condition and development needs of energy infrastructure—i.e., power plants, transmission networks, the electricity grid, the gas grid, and storage facilities, as well as oil and fuel storage infrastructure.⁴³

One of the strategic aims defined in the strategy, is “[e]nsuring energy security of the state based on traditional energy sources by creating conditions for development of alternatives.” The implementation of the strategy involves four interventions. Firstly, it is planned to increase power generating capacities, modernize the electricity distribution network and develop dispersed energy sources. Secondly, a major priority is diversification of natural gas and oil, which is expected to be achieved by investments in Baltic Pipe and LNG terminals in Świnoujście and the Bay of Gdańsk as well as development of gas storage and distribution infrastructure in order to set up a hub providing gas supplies to other countries in the region. Thirdly, increasing the capacity of oil pipelines and storage infrastructure is stressed. Fourthly, the strategy includes counteracting the development of the Russian gas distribution network by diplomatic, legal and administrative instruments in order to reduce Central Europe's dependence on Russian supplies and strengthen the region's resilience.⁴⁴ Certainly, while implementing energy security, environmental protection issues should also be considered. The strategy involves the use of alternative fuels, development of the zero-emission energy industry, and exploitation of opportunities related to innovative energy production technologies.⁴⁵ Moreover, taking into account the importance of energy for national security, energy, besides security and defense, trade and investments, and research and development, is considered as an important field of bilateral cooperation between Poland and the United States.⁴⁶

39. See: “Robust. Resilient. Sustainable...”, *op. cit.*, page 26.

40. *Ibid.*, pages 13, 25, 33, 35–36, 55, 58.

41. See: “National Security Strategy of the Republic of Poland” approved on 12 May 2020 by the President of the Republic of Poland, Warsaw 2020, available at https://www.bbn.gov.pl/ftp/dokumenty/National_Security_Strategy_of_the_Republic_of_Poland_2020.pdf, page 16.

42. *Ibid.*, page 34.

43. *Ibid.*, page 8.

44. *Ibid.*, page 34.

45. *Ibid.*

46. *Ibid.*, pages 10, 25.

3. Discussion

The summary of the findings of the multiple case study analysis of energy security assumptions included in national security strategies is presented in table 1.

The national security strategies under analysis perceive energy as a means of geoeconomics. Energy is considered to be a geostrategic lever explicitly (France) or implicitly (the United States, the United Kingdom, Germany, and Poland). The majority of the countries under analysis (with the exception of France) point out the crisis in energy markets caused by Russia's manipulation of energy supplies and weaponization of energy. Disruptions in energy markets and tensions over access to energy sources are other important aspects mentioned in nearly all the analyzed strategic documents (the Polish national security strategy issued in 2020, before Russia's aggression against Ukraine, is the exception). The strategies of the countries showing global aspirations (e.g., United States and the United Kingdom) highlight the role of international collaboration in the field of energy security. The geography of this integrated collaboration is mainly focused on Euro-Atlantic and Indo-Pacific areas, but the US National Security Strategy also declares cooperation with Middle East, African and South American partners. In the case of the Polish National Security Strategy, bilateral cooperation with the United States as a strategic partner for energy security is highlighted.

Ensuring continuity of energy supplies is at the core of energy security issues included in national security strategies. With the exception of the United States, all the countries highlight in their strategies the role of energy security in the state's resilience. Ensuring continuity of energy supplies is planned to be achieved by stabilization of energy markets, diversification of energy supplies, and securing critical energy infrastructure. Taking into account the weaknesses and vulnerabilities of the national energy system, the National Security Strategy of the Republic of Poland pays special attention to improving energy infrastructure and maintaining the competitiveness of electricity production. On the other hand, the United Kingdom explicitly stresses the importance of the use of nuclear energy for its strategic energy security.

Sustainable energy transformation is the last, by certainly not least, theme related to energy security covered in national security strategies. Nearly all the strategic documents under analysis (with the exception of the French National Strategic Review) combine the issue of energy security with sustainable energy transformation and green investments. Therefore, the paramount importance of developing innovative green energy technologies is indicated.

Table 1. Key aspects of energy security included in national security strategies

Energy security aspects	US	UK	France	Germany	Poland
Energy as a geostrategic lever			✓		
The energy crisis triggered by Russia's use of energy supplies manipulation / weaponization of energy	✓	✓		✓	✓
Disruptions in energy markets and tensions over access to energy sources	✓	✓	✓	✓	
International cooperation for energy security	✓	✓			✓
Energy security's role in the state's resilience		✓	✓	✓	✓
Energy markets stabilization	✓	✓			
Diversification of energy supplies		✓		✓	✓
Securing critical energy infrastructure	✓	✓		✓	✓
Improving energy infrastructure					✓
Maintaining the competitiveness of electricity production					✓
The use of nuclear energy		✓			
Sustainable energy transformation and green investments	✓	✓		✓	✓
Innovative energy technologies / green energy technologies	✓	✓		✓	

The present findings indicate the ambidexterity of national security strategies' assumptions, combining the long-term focus on "energy trilemma" with short-term efforts aimed at ensuring continuity of energy supplies. In the long-term perspective, the dyadic relationship between energy security and mitigating the negative impact on climate change is highlighted. This is in particular the case of the US National Security Strategy, which enumerates both climate and energy security as transnational "shared challenges." Nevertheless, it should be noticed that the Biden-Harris administration's devotion to the climate agenda, reducing emission, and net-zero emission targets receives some criticism from political opponents.⁴⁷

Conclusion

In response to the first research question, the following themes related to energy security are found to be included in national security strategies: (1) energy as a means of geoeconomics, (2) ensuring continuity of energy supplies, (3) sustainable energy transformation. The first theme, which focuses on energy as a means of geoeconomics, covers the following aspects: (1) energy as a geostrategic lever, (2) the energy crisis triggered by Russia's use of energy supplies manipulation / weaponization of energy, (3) disruptions in energy markets and tensions over access to energy sources, (4) international cooperation for energy security. The second theme, which deals with ensuring continuity of energy supplies, highlights: (1) the role of energy security in the state's resilience, achieved by (2) stabilization of energy markets, (3) diversification of energy supplies, and (4) securing critical energy infrastructure. Some aspects specific to the countries under analysis are included — e.g., (5) improving energy infrastructure, (6) maintaining the competitiveness of electricity production, and (7) the use of nuclear energy. The third theme, which is related to sustainable energy transformation, encompasses the two following aspects: (1) sustainable energy transformation and green investments, and (2) innovative energy technologies / green energy technologies.

In response to the second research question, the findings of the study indicate that the analyzed national security strategies try to be ambidextrous by combining their long-term, comprehensive and functional programs of action, linking the issue of energy security with economic efficiency and environmental sustainability, and their short-term efforts, focused on ensuring continuity of energy supplies, especially in relation to serious disruptions on energy markets experienced as a result of Russia's war of aggression against Ukraine and weaponization of energy.

Summing up, the study's limitations should be made explicit. First of all, case study analysis is an exploratory method, deeply embedded in the given context and characterized by reduced potential for generalizing the findings. Thus, a replication of the study with another research sample, extended to some other countries or international organizations (e.g., NATO or the European Union) is recommended. Extending the analysis to the functional-level energy security strategies is another recommendation for further research. Secondly, the analysis was focused on explicit, declarative statements included in national strategic documents. Since the actual implementation of those assumptions was not discussed, this problem could be another interesting research topic. Such a study should be supported with a more comprehensive toolbox of data collection techniques, such as experts interviews, observation, and documentation analysis. Thirdly, the analysis was conducted in the second year of Russia's war of aggression against Ukraine, which radically changed the security environment, including energy security aspects. Out of the five countries under analysis, four issued their new strategic documents after February 24, 2022. Consequently, it may be assumed that this particular factor had a significant impact on those documents. Therefore, a replication of the study after the end of the war is recommended. Fourthly, a further recommendation is to analyze the strategic documents of international organizations focused on energy and climate neutrality issues, insofar as those documents generate real commitments for states⁴⁸. It is proposed to extend future

47. See: "Energy Security is National Security." Foreign Affairs Committee — Chairman Michael McCaul, available at <https://foreignaffairs.house.gov/energy-security-is-national-security/>.

48. The author is grateful for this suggestion to one of the subject matter experts revising the case study report for ensuring its construct validity.

research so as to include the European Union's strategies for achieving climate neutrality by 2050.⁴⁹ These actions are collectively referred to as the European Green Deal. The overall package of actions includes such key documents as "FIT for 55"⁵⁰ and NextGenerationEU⁵¹. These documents have a strong influence on the course of the energy transition process of the European Union Member States. By means of legal, administrative and financial tools, a specific model of future energy is supported, which has a strong impact on energy security. Another initiative (i.e., REPowerEU⁵²) is designed to reduce dependence on gas and oil imported from Russia. It is intended to replace imports from the East with electricity produced in the European Union countries. It should be noted that the European Union's policies strongly influence the sovereign decisions of the Member States' governments in terms of energy policy planning. From this perspective, it seems that analysis of the aforementioned documents will enable a better understanding of the challenges, opportunities and threats related to energy security which result from these European Union policies.

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49. See: European Council meeting (12 December 2019) - Conclusions. Brussels, 12 December 2019 (OR. en), EUCO 29/19, CO EUR 31 CONCL 9. General Secretariat of the Council to Delegations. Document available at <https://www.consilium.europa.eu/media/41768/12-euco-final-conclusions-en.pdf>.

50. See: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality. COM/2021/550 final.

51. See: Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility. OJ L 57, 18.2.2021, p. 17–75.

52. See: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU Plan. COM/2022/230 final.