



Wojciech Saletra¹

ENERGY SECURITY POLICY OF THE EUROPEAN UNION TOWARDS THE CHALLENGES, THREATS AND OPPORTUNITIES OF THE SECOND DECADE OF THE 21ST CENTURY

Introduction

The European Union of the second decade of the 21st century has to address the challenges and threats in the energy security sector. For the most part, they stem from the increasing demand for energy raw materials, insufficient diversification of energy sources, high and volatile energy prices, unstable political situation in raw materials-exporting countries, climate change, low share of renewable energy sources in the EU's energy mix, and the need for greater transparency and integration of energy markets².

Stanisław Koziej, former Head of the National Security Bureau, aptly brought to the fore the key elements and identified the challenges, threats and opportunities of energy security³:

- The energy challenges constitute decision-making dilemmas, mainly related to the environment through raising the bar of requirements and needs. One example of such a challenge may be the construction of the Baltic Sea pipeline by our partners. Should we not address it appropriately, the pipeline might pose a threat to Poland's energy security creating the potential for Russia to engage in energy blackmail. The strategic response must entail either torpedoing the project or ensuring a prior establishment of an EU common energy policy which would include a guarantee of equal access to EU's common energy resources.
- Energy security threats is the devastating pressure of the environment on a given entity. In terms of energy security this means a cutoff or a threat of the energy

¹ Wojciech Saletra, Associated Professor, Jan Kochanowski University, Kielce.

² Balázs Mellár, *Polityka energetyczna: zasady ogólne*. 2016, 1, retrieved 29.05.2016, http://www.europarl.europa.eu/ftu/pdf/pl/FTU_5.7.1.pdf.

³ Stanisław Koziej, „Bezpieczeństwo energetyczne elementem większej całości”. *Bezpieczeństwo energetyczne – współczesny wymiar bezpieczeństwa narodowego*, 24.04.2008.

cutoff or a suspension of energy supplies by the producer or a third party attack on transmission grid, e.g. terrorist organizations. In our case, the most realistic threat is using the 'energy weapon' for blackmail purposes by Russia or exertion of pressure by it, possibly leveraging energy security. The response to such threats should be a diversification of energy sources.

- Energy opportunities, also called favorable circumstances. These are usually short-lived and ephemeral phenomena. The ability of recognizing and seizing the opportunities is today as crucial as the traditional art of averting threats. Undoubtedly, such a chance can be identified in the formulation and implementation of a common EU energy policy.

On the other hand, James R. Schlesinger⁴ took the view that "instead of energy security, we should deal with threats to it, i.e. concentrate on energy insecurity"⁵. Generally speaking, among the risks facing the EU energy policy which link the above mentioned threats and challenges we can distinguish the following: the lack of a single energy market, the lack of solidarity mechanisms among the Member States of the European Union, and the ambitious EU energy and climate policy⁶. Moreover, one should not forget about the geopolitical challenges to the EU energy security policy⁷.

Challenges and threats resulting from the lack of a unified internal market

The European Union seeks to establish a single energy market. Despite the great importance of the project, at present it seems to lack full transparency⁸. In February 2011, the European Council set the objective of completing the internal energy market by 2014⁹. This undertaking would have involved "establishing the necessary mechanisms to minimize the risk to and optimize the functioning of the Member States national energy networks and to foster regional cooperation initiatives"¹⁰.

Examining the problems of the EU common energy market, two key issues posing a challenge for energy integration should be taken into account. The first

⁴ US Secretary of Defense under Presidents Richard Nixon and Gerald Ford, US Secretary of Energy in the President Jimmy Carter's administration.

⁵ Justyna Misiągiewicz, „Bezpieczeństwo energetyczne Unii Europejskiej”, *Poziomy analizy stosunków międzynarodowych*, ed. Edward Halizak, Marek Pietraś, (Warszawa: Polskie Towarzystwo Stosunków Międzynarodowych i Wydawnictwo Rambler, 2015), 487-488.

⁶ *Zagrożenia i wyzwania dla bezpieczeństwa energetycznego Unii Europejskiej*, 2013, retrieved 24.05.2016, <http://stosunki-miedzynarodowe.pl/bezpieczenstwo/1538-zagrozenia-i-wyzwania-dla-bezpieczenstwa-energetycznego-unii-europejskiej>.

⁷ Kamila Pronińska, „Geopolityka surowców energetycznych – trendy globalne i regionalne po kryzysie finansowym”. *Rocznik Strategiczny*, (2010/2011): 261-282.

⁸ Waldemar Skomudek, *Odnaleźć się na wspólnym rynku energii*, 2015, retrieved 30.05.2016, <http://cse.ibnigr.pl/odnalezc-sie-na-wspolnym-ryнку-energii/>.

⁹ Iana Dreyer, Gerald Stang, *Energy Moves and Power Shifts EU Foreign Policy and Global Energy Security*. (Paris: European Union Institute for Security Studies, 2014), 54.

¹⁰ Waldemar Skomudek, op. cit.

element concerns the interconnectivity of the EU Member States energy. The second element relates to financing of the undertaking. It can be therefore concluded that “the establishing of the single energy market will to a large extent depend, on the one hand, on how quickly the European countries’ energy systems can be interconnected using additional trans-border interconnectors, and on the other on the economic and political issues such as adoption of a common satisfactory mechanism of electricity prices convergence”¹¹. In this context, it is worth noting that the barriers to advancing energy integration are, among others, as follows¹²:

- different level of charges levied on electric energy at all levels, including the levels of electricity production and electricity retailing,
- incompatible support schemes,
- differing perceptions of energy independence,
- limited transmission capacity, and in particular, the lack of harmonization of transmission capacity calculation.

In June 2011, the European Commission published its proposal titled “The Multiannual Financial Framework 2014-2020”¹³. Klaus-Dieter Borchardt, Director of Internal Energy Market with European Commission’s Directorate-General for Energy, informed that in the new financial perspective for the EU for 2014–2020 a particular role will be played by actions related to energy projects. According to Borchardt, Brussels will earmark a total of EUR 17 billion for the development of the energy industry. For example, only for the development of energy from renewable sources (RES) and the energy efficiency, the European Union intends to spend EUR 800 million for which potential beneficiaries of EU funding may directly apply to Brussels¹⁴.

It should also be mentioned that along with the presentation of the 2014-2020 financial framework¹⁵, the European Commission proposed the creation of a new integrated instrument for investing in EU infrastructure priorities in transport, energy and telecommunications. The instrument has been named Connecting Europe (Connecting Europe Facility – CEF¹⁶). From Poland’s point of view, launching a new financial instrument seems ambiguous. The very concept of establishing it to promote the development of energy, transport and

¹¹ Ibidem.

¹² Raport z debaty „Perspektywa rynków energii, a unia energetyczna” pod patronatem Społecznej Rady ds. Zrównoważonego Rozwoju Energetyki (2015). Warszawa: Ministerstwo Środowiska, 3.

¹³ Komisja Europejska, *Budżet z perspektywy ‘Europy 2020’* COM(2011)500 z 29 czerwca 2011.

¹⁴ *Budżet UE na lata 2014-2020: dotacje głównie na energetykę rozproszoną*. 2014, retrieved 10.10.2015, <http://gramwzielone.pl/trendy/7944/budzet-ue-na-lata-2014-2020-dotacje-glownie-na-energetyce-rozproszona>.

¹⁵ Komisja Europejska, op. cit.

¹⁶ Connecting Europe (CEF) is a key EU funding instrument to promote growth, jobs and competitiveness in the context of energy policy. The new EU instrument aims to enhance energy security through targeted energy infrastructure investments while enabling the greater use of renewable energy sources. After: *Connecting Europe Facility*. 2016, retrieved 27.05.2016, <https://ec.europa.eu/inea/en/connecting-europe-facility>.

telecommunications infrastructure merits support; however, its financing mechanism raises concern amongst Polish decision-makers. The most debatable seems to be the proposal to allocate EUR 10 billion of the Cohesion Fund to support activities under the new instrument and subject it to the same rules. Such a situation will result in that the sum of approx. 4 billion Poland could receive from the CF would be transferred to all Member States eligible for Cohesion Funds. It should be noted that in addition to the amount of EUR 10 billion, the budget under the Instrument will amount to EUR 40 billion, and thus generate an additional financial burden for Poland of approx. EUR 1.2 billion to implement the CEF¹⁷.

Professor Krzysztof Żmijewski points out that one of the key elements for success of the single energy market in Europe are the electricity prices in individual EU countries. Prof. Żmijewski notes that the countries with the lowest electricity prices on the wholesale market, such as Denmark and Germany, have at the same time the highest prices on the retail market. Meanwhile, for example in the UK despite the high wholesale prices, there are low prices for the end-users. This complicates the building of a common energy market which envisages competition mainly in the wholesale market¹⁸.

Ireneusz Łazor, President of the Management Board of Towarowa Giełda Energii (Polish Power Exchange), addressed the proposed creation of a single energy market by citing the distinct price areas within the EU. At present, according to Ireneusz Łazor, there exist two areas of common trade, for example Portugal and Spain as well as France, Germany, Austria, Belgium, the Netherlands and the UK. Poland and Sweden constitute the other area. Since January 2016, the same prices have been set in Poland, Lithuania, and Sweden. "Consideration should be given here to where the energy will flow in view of considerably different wholesale prices on these three markets"¹⁹.

In 2015, the European Commission adopted a list of 195 key projects for advancing the development and modernization of the European energy infrastructure. The projects known as Projects of Common Interest (PCIs), as outlined in the European Commission communication (EC), will enable the gradual building of the Energy Union by integrating the energy markets in the European Union as well as increase diversification of energy sources and transport routes. The list adopted by the European Commission is an update of the PCI list approved two years ago and includes 108 electricity, 77 gas, 7 oil and 3 smart grids projects²⁰.

In summation of the role of a single energy market for the entire European Union, it becomes clear that implementation of the Union energy market would result in competitive energy prices, foster creation of mechanisms to improve

¹⁷ *Opinia merytoryczna i prawna w sprawie wniosku dotyczącego rozporządzenia Parlamentu Europejskiego i Rady ustanawiającego instrument „Łącząc Europę”, (KOM(2011) 665 wersja ostateczna). Warszawa: Komisja ds. Unii Europejskiej, 2011, 4-10*

¹⁸ Report from the debate „Perspektywa rynków energii, a unia energetyczna”, 2015, 8.

¹⁹ Report from the debate „Perspektywa rynków energii, a unia energetyczna”, 8.

²⁰ “Komisja przedstawia kluczowe projekty...”, 2015.

energy efficiency as well as stimulate new investments in energy infrastructure. To address this goal, the European Union should focus its actions on harmonization of relevant legislation and the integration of energy infrastructure, guaranteeing sustainability and security of energy²¹. Addressing these challenges in the near future could be the key to providing in the nearest future an opportunity for implementing more effective EU energy policy anchored in the single energy market.

Lack of energy solidarity among EU Member States as a challenge and a threat to the European Union's energy security policy

EU Energy solidarity²² as part of the European Union's foreign policy is one of the most significant challenges facing Europe in the 21st century. At the EU forum in recent years, energy solidarity has been discussed repeatedly, which in practice should serve as a foundation for EU actions on the international energy market²³. Unfortunately, the energy solidarity is still hardly visible. Appropriate solidarity mechanisms to realize energy solidarity are still at the consultation stage between Member States; furthermore, there is no consensus between Member States on the level and extent of the integrated energy policy²⁴.

Discussing the concept of energy solidarity, it should be noted that the EU representatives present it in a rather vague manner without precisely defining what the energy solidarity actually means. A good example of expressing the issue in such an indistinct way could be the remarks by Guenter Verhuegen, the then Vice-President of the European Commission, addressed to the President of the Republic of Poland Lech Kaczyński in 2007, who stated that the EU energy policy should be based on the principle of solidarity between Member States which means that the distribution of tasks and responsibilities within the energy policy should be fair and take into account the differences between the states²⁵.

²¹ Sławomir Pastuszka, „Bezpieczeństwo energetyczne Unii Europejskiej z uwzględnieniem polityki spójności”, in: *Pomiędzy światem polityki a życiem naukowym. Księga jubileuszowa dedykowana Profesorowi Wojciechowi Saletrze*, ed. Jerzy Jaskiernia, Radosław Kubicki, (Kielce: Uniwersytet Jana Kochanowskiego, 2015), 491.

²² The notion of solidarity has been used extensively in international relations. It is defined as “states acting in good faith for the benefit of own national interests to achieve the best objective outcome. It is never a complete success as interests of other partners must be taken into account.” After Mariusz Muszyński, *Europejska solidarność – obowiązek czy akt woli politycznej?* 2015, retrieved 30.05.2016, <https://oaspl.org/2015/09/07/europejska-solidarnosc-obowiazek-czy-akt-woli-politycznej>.

²³ Roman Ney, „Uwagi w sprawie polityki energetycznej Unii Europejskiej”, *Polityka energetyczna*, (2007): t. 10, Zeszyt specjalny 2, 669.

²⁴ Ireneusz Miciuła, „Polityka energetyczna Unii Europejskiej do 2030 roku w ramach zrównoważonego rozwoju”. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*, (2015): 42, T. 20, 64.

²⁵ Remigiusz Rosicki, *Europejska polityka energetyczna – między solidaryzmem a egoizmem*. 2007, 289, retrieved 30.10.2013, http://www.academia.edu/1913376/Europejska_polityka_energetyczna-miedzysolidaryzmem_a_egoizmem.

One of the major challenges of global security policy is the coordinated action in the international arena, particularly given the fact that in the past the concept of energy solidarity attracted little interest at the forum of the EU. In January 2006, Kazimierz Marcinkiewicz, the Polish Prime Minister, put forward a proposal to establish the so-called 'Musketeers' Pact, i.e. energy alliance based on the "One for all, and all for one" principle. The system drawing on the founding concept of the North Atlantic Treaty Organization was to be launched in case of an energy crisis²⁶. Poland substantiated its proposal by the following: firstly, the doctrinal premise ought to go beyond the adopted functioning mechanism of the Alliance and the issue of energy security could justify the broadening of its competences; secondly, from the Polish perspective, it would make negotiations with Russia easier knowing that in the case of a setback or Russia's unfriendly actions, Poland could rely on support of the 'Musketeers' Pact member countries; thirdly, international efforts of the EU and NATO ought to be consolidated so that in the event of an energy crisis the member states of both organizations along with energy corporations could appropriately address the situation threatening energy security. Germany and France responded to the proposal with a great deal of skepticism²⁷ as the initiative was clearly perceived by these states as aimed against Russia. For Germany and France, the proposal was not advantageous from the point of view of the energy security or the economy²⁸. The implementation of the 'Musketeers' Pact, according to the representatives of both countries, would have a negative impact on the stability and security in Europe, and on the long-term European energy policy, as well as have the chilling effect on EU-Russia relations²⁹.

The Treaty of Lisbon, signed on 13 December 2007, amending the Treaty on European Union and the Treaty establishing the European Community, opened up a way for developing energy policy that is based on solidarity between Member States. The policy contained an energy solidarity clause as its basis and was to be equipped with the necessary instruments to ensure security of supply and to support development of renewable energy sources as well as energy efficiency³⁰. The Treaty of Lisbon contains Article 176a (renumbered as Article 194), which reads as follows: "In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:

(a) ensure the functioning of the energy market;

²⁶ Joanna Bochaczek-Trąbska. „Bezpieczeństwo energetyczne Polski u progu XXI wieku”, in: *Prace Naukowe Akademii im. Jana Długosza w Częstochowie*, red. Henryk Cwięka, (Częstochowa: Res Publicae, 2011), 55.

²⁷ Paul Belkin, *The European Union's Energy Security Challenges*. 2008, retrieved 29.05.2016, <http://www.fas.org/sgp/crs/row/RL33636.pdf>. p. 28)

²⁸ Kraenner Sascha Müller, *Bezpieczeństwo energetyczne, nowy pomiar świata*, (Szczecin: Wydawnictwo Z Naszej Strony, 2008), 116.

²⁹ Ibidem.

³⁰ Mariusz Ruszel, *Kierunki rozwoju polityki energetycznej UE*. 2009, 2, retrieved 06.06.2016, <http://www.psz.pl/119-energia/mariusz-ruszel-kierunki-rozwoju-polityki-energetycznej-ue>

- (b) ensure security of energy supply in the Union;
- (c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and
- (d) promote the interconnection of energy networks.

The provisions of the Lisbon Treaty only affirmed the main objectives of the Community's active energy policy. Nevertheless, it must be pointed out that individual Member States still are the key decision-makers on energy security since national energy policies in their approach to development often vary substantially due to considerably uneven development of infrastructure, and in the energy mix. All this makes the Community proposals encounter different reality across the EU³¹. The entry into force of the Lisbon Treaty provided conceptual framework for establishing a coherent and effective external energy policy based on solidarity which was the cornerstone of the European Energy Union (more on this subject in the subparagraph on the chances for the EU energy policy).

In May 2010, the European Commission, following a request by the European Council, put forward a strategy document on a common energy policy³². The Member States were to provide their input on the proposed energy solutions and the document itself presented the future direction of the EU energy policy for the years 2011-2020. According to the European Commission representatives, the future Union's energy policy should be based on:

- development of interconnected, interoperable and smart energy networks,
- decarbonization of the energy industry and increasing renewable energy,
- promoting new technologies to support the development of more efficient energy systems,
- carrying out a coordinated energy policy in the international arena,
- creating optimal conditions for competition in the energy markets of the Community³³.

Even though Member States have currently relinquished part of their sovereignty to EU institutions, e.g. economy and trade policy, the energy policy remains the responsibility of individual Member States which make their own decision on long-term contracts for supply of energy raw materials or development of energy infrastructure³⁴. EU-Russia relations, decarbonization of the EU economy or shale gas exploitation have caused a rift among the EU states.

Cooperation between the European Union and Russia in the energy sector is a relatively new phenomenon. The energy dialogue between the EU and Russia was initiated in 2000. The process was to bring Russia closer to the mechanism of the EU but it only proved that the EU and Russia have different priorities, which is clearly manifested in the energy sector. The Kremlin authorities, in their relations

³¹ Ireneusz Miciuła, op. cit., 61.

³² European Commission, *Towards a New Energy Strategy for Europe 2011-2020*, 2010, retrieved 10.10.2016, http://jncc.defra.gov.uk/pdf/1029_Consultation.pdf

³³ Bogdan Ekstowicz, „Polityka energetyczna i efektywność bezpieczeństwa energetycznego Unii Europejskiej i Polski”. *Elektroenergetyka*, 4 (10), (2011): 116.

³⁴ Paul Belkin, op. cit.

with the EU, resort to using protectionist arguments based on Russia's position in the international arena and in the European energy markets. The EU, however, out of concern over energy security, is mainly interested in the reform and modernization of Russia's energy sector³⁵. In 2013, the EU and Russia signed an agreement on energy cooperation until 2050. The document titled "Roadmap EU Russia Energy Cooperation until 2050" sets out the future cooperation, and in particular the long-term energy cooperation on electricity, gas, oil, coal, RES, renewable energy, and energy efficiency. The strategy objectives include integration of energy infrastructure, approximation of standards and opening-up of the markets. In addition, it outlines the increasing role of renewable energy resources (RES) in the Russian energy sector in place of exports of raw energy materials to the EU³⁶. From the EU's energy security perspective, the most obvious concern appears to be Russia's aggressive policy towards some of the EU countries, attempting to disintegrate the European Union in regard to as the Community of energy solidarity.

According to the European Commission representatives, the planned decarbonization of the economy is to be a panacea for the EU import dependency on energy raw materials³⁷ as well as a stimulus boosting the development of innovations and creating new jobs. According to the initial estimates, implementation of the objective may lead to the reduction in expenditures on imported fuel in the amount of EUR 175–320 billion per year and the creation of 1,5 million new jobs by 2020. In addition, a significant reduction in carbon emissions in the EU may contribute to improve air quality and public health³⁸. Attempts to persuade Poland to adopt a common energy policy, based on phasing out coal in favor of renewable energy sources, may cause friction within the European Union as such a concession by Poland may prove very destabilizing to the coal-based Polish economy and adversely impact the competitiveness of our businesses, given the present economic and energy reality³⁹. According to the former Deputy Prime Minister Waldemar Pawlak, "You cannot compare the European Union with the totalitarian Soviet Union where things had to be done in

³⁵ Paweł Świeboda, *Strategiczne wyzwanie dla Unii Europejskiej. Kształtowanie zewnętrznego wymiaru polityki energetycznej*, (Warszawa: Centrum Strategii Europejskiej, 2009), 5.

³⁶ Olga Zakrzewska, *Bezpieczeństwo energetyczne w stosunkach Rosja – Unia Europejska w kontekście współzależności eksportowo – importowych*. 2016, 167 retrieved 04.06.2016, <http://kollegia.sgh.waw.pl/pl/KES/kwartalnik/Documents/KES17OZ.pdf>.

³⁷ According to analysts' forecast, the demand for raw energy materials in the EU countries will continue to grow steadily. It is projected that in 2030, 93% of crude oil and 84 % of natural gas for use in the EU countries will be imported. In total, it is estimated that EU will be forced to import 70% of energy to satisfy its needs. Paweł Świeboda, op. cit, 5.

³⁸ Agata Hinc, „Transformacja gospodarki w kierunku niskoemisyjnym”, *Studia BAS*, 1(29), (2012): 119.

³⁹ Tomasz Teluk, *Perspektywy energetyki jądrowej w Polsce – raport Instytutu Globalizacji w ramach projektu "Atom dla Polski"*, (Warszawa: Fundacja Instytut Globalizacji, 2010), 30.

the same manner”⁴⁰, and therefore the decarbonization of economy must be achieved gradually so it does not have a dramatic and negative impact on the Polish economy.

The issue of the shale gas development production by the European energy sector for a few years now has been the subject of an intense international debate. There are ongoing discussions at the EU forum on opportunities arising from shale gas exploration as well as risks associated with it through environmental degradation. Member States’ different positions on shale gas, for the most part reflect a limited experience to date with exploration and development of shale gas⁴¹. The European lack of experience in shale gas exploitation leads to the phenomenon that the potential economic and environmental impacts of shale gas development are based almost entirely on the North American experience⁴². Former Polish Prime Minister and former President of the European Parliament Jerzy Buzek at the South Baltic Gas Forum 2011 stated that: there is no unanimity within the EU on issues regarding the shale gas exploration. Some talk about security and the need for development of own and existing gas resources while others predict some sort of ecological disaster. And so we have nothing else but contradictions⁴³. France, Bulgaria, Romania, and Czech Republic are among the countries calling for a total ban on shale gas extraction. Also Germany is skeptical about the issue. On the other hand, Poland, Ireland, Greece, and Spain have already begun prospecting for shale gas⁴⁴.

Summarizing the issue of energy solidarity, it should be remembered that at the EU forum, the conviction of overriding importance of energy solidarity and its accompanying mechanisms over an individual approach to the energy issues are opposed by member states which place their own political and economic interests above the Union’s founding principles. Countries of the so called “Old Union,” led by Germany, set the tone for the EU policy and in the case of Europe’s energy security, marginalize the voice of the EU new members, among them Poland, on

⁴⁰ *Droga do eldorado łupkowego jednak daleka*. 2013, retrieved 21.12.2013, <http://giel-da.onet.pl/droga-do-eldorado-lupkowego-jednak-daleka,18726,5573543,news-det> al.

⁴¹ Wojciech Saletra, Adrian Mitreǵa, „Kwestia wydobycia gazu łupkowego w debacie energetycznej Parlamentu Europejskiego”. *Studia Humanistyczne – Społeczne*, (2014): tom IX, 127.

⁴² “Środowiskowe aspekty poszukiwań...” 2011, 2.

⁴³ *Gaz łupkowy wspólnym interesem Unii Europejskiej*. 2011, retrieved 15.02.2014, <http://buzek.pl/node/7343>.)

⁴⁴ See: Tomasz Młynarski, *Uwarunkowania i dylematy bezpieczeństwa energetycznego Unii Europejskiej – czyli co z tym gazem?*, Brief programowy Instytutu Kościuszki, (2010): 1-8; Alan Riley, „Europejskie złoża gazu niekonwencjonalnego jako alternatywa wobec gazowej zależności od Rosji”, in: *Wpływ wydobycia gazu łupkowego na rozwój społeczno-ekonomiczny regionów – amerykańskie success story i potencjalne szanse dla Polski*, (Kraków: Instytut im. Tadeusza Kościuszki, 2012), 89-100; Agnieszka Puch-Gurgul, „Perspektywy wykorzystania gazu łupkowego w energetyce Unii Europejskiej”, *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, (2013): 21.; *Zasoby Gazu i ropy ze złóż niekonwencjonalnych (Natural Gas and Oil From Unconventional Deposit) – zarys stanu prac poszukiwawczych – wydobywczych, perspektywy rozwoju i możliwe implikacje międzynarodowe* (2016), retrieved 04.06.2016, <https://www.mszy.gov.pl/resource/feec2fc6-b64d-4a16-8104-020f23765052:JCR>.

diversification of supplies or decarbonization. These actions run counter to the principle of mutual solidarity within the EU common foreign and security policy⁴⁵. This situation paints a picture of the EU as incapable of adopting a common approach and taking joint action in response to meet common energy challenges⁴⁶.

EU Climate and Energy Policy as a threat to member states' competitiveness in the international arena

President of the Polish Ecological Club, Mazovia Branch, Professor Zbigniew Karaczun, believes that "climate policy is the answer to one of the most important environmental, social and economic challenges which is the climate change. A climate policy constitutes a long-term investment which often tends to be overlooked in Poland. The public discourse surrounding the issue revolves around stereotypes and myths. There is a need for creating innovative solutions, rather than merely maintaining the status quo. There is no confidence here that we can build an innovative economy, and all we do is look for excuses justifying our inaction"⁴⁷.

In January 2007, the European Commission presented a series of proposals setting ambitious goals for climate protection and specified that their overarching objective is a guarantee of not allowing the increase of global average temperatures exceed more than 2 degrees Celsius of the pre-industrial level⁴⁸.

The adopted climate and energy package was signed on behalf of Poland by President Lech Kaczyński in March 2007. The generally held view was that there was almost no public or political debate on such important matters as energy and climate protection and, in addition, a glaring lack of participation of the business community in negotiations on the agreement⁴⁹. The climate and energy package with its so-called three "20 targets" has set ambitious objectives of reducing greenhouse gas emissions by at least 20% below 1990 levels by 2020 and, consequently, in the subsequent years EU declared to increase its emissions reduction as much as to 30%. Member States also committed themselves to a 20% reduction in primary energy use by 2020, along with improving energy efficiency. The third objective was to increase the share of renewable energy in gross final

⁴⁵ *Vertrag über Europa. Verfassung für Europa*, (Luxemburg: Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaften, 2003), 49.

⁴⁶ Paweł Wróbel, *Wpływ Rosji na współczesne bezpieczeństwo energetyczne Unii Europejskiej*. 2008, retrieved 03.05.2016, <http://www.psz.pl/117-polityka/pawel-wrobel-wplyw-rosji-na-wspolczesne-bezpieczenstwo-energetyczne-unii-europejskiej>.

⁴⁷ Zbigniew Karaczun, *Polityka klimatyczna UE może niekorzystnie wpłynąć na konkurencyjność polskiej gospodarki*. 2014, retrieved 03.06.2016 <http://www2.deloitte.com/pl/pl/pages/press-releases/articles/Polityka-klimatyczna-ue-konkurencyj-nosc-gospodarki.html>.

⁴⁸ Komisja Europejska, *Ograniczenie globalnego ocieplenia do 2°C w perspektywie roku 2020 i dalszej*, KOM(2007)2, Bruksela, 10.01.2007.

⁴⁹ Artur Gradziuk, Zbigniew Karaczun, Ernest Wyciszkievicz, *Globalne negocjacje klimatyczne: interesy i wyzwania dla Polski i Unii Europejskiej*, (Warszawa: Polski Instytut Spraw Międzynarodowych i Koalicji Klimatycznej, 2011), 10.

energy consumption to 20 % by 2020 and to obtain 10% of all transport fuels from biofuels⁵⁰.

Pursuing an ambitious climate policy, the European Union put also forward new climate and energy objectives for 2030 and 2050, respectively, which include:

- a 40% cut in greenhouse gas emissions.,
- at least a 27% share of renewable energy in gross final energy consumption,
- improvement in energy efficiency by 27-30%,
- 15% electricity interconnection (i.e. 15% of electricity generated in the EU can be transported to other EU countries).

In addition, an 80-95% cut in greenhouse gases compared with 1990 levels should be achieved by 2050⁵¹.

The objectives set by the European Union will undoubtedly impact the economic development of the Community and its international competitiveness. The decarbonization of economy and shifting from fossil fuels to renewable energy sources together with the implementation of the energy and climate change package will result in the rise in energy prices in the countries where coal is used as the main fuel for electricity generation. Since 2008, Poland has attempted to mitigate the economic impact of the energy and climate change package. As stated in "The National Environmental Policy for 2009-2012 and its 2016 Outlook", "While making no objection against the need to devote efforts to the protection of the Earth's climate, one however has to state here that a number of the Commission's Decisions can be hardly acceptable by Poland"⁵². The Polish government in voicing the opposition intends to act as a spokesman for all the countries of Central and Eastern Europe⁵³. The member countries of the Visegrad Group (V4) – Hungary, Czech Republic, Poland and Slovakia - submit a motion for the rising cost of energy to be taken into account when implementing the package⁵⁴. In the EU, Poland calls for further reductions in CO₂ emission to be introduced without discriminating the domestic energy raw materials. Poland expresses its concern over the transformation stating that the overhaul of its energy industry required to meet the EU targets would lead to a lower competitiveness of Polish economy and bring about an increase in electricity prices charged to end-users⁵⁵.

⁵⁰ *Pakiet klimatyczno-energetyczny: analityczna ocena propozycji Komisji Europejskiej*, (Warszawa: Urząd Komitetu Integracji Europejskiej, 2008), 64-65.

⁵¹ *Energia*. 2016, retrieved 04.06.2016, http://europa.eu/pol/ener/index_pl.htm.

⁵² *Polityka ekologiczna państwa w latach 2009 – 2012 z perspektywą do roku 2016*, (Warszawa: Ministerstwo Ochrony Środowiska, 2008), 10.

⁵³ Katarzyna Dośpiał-Borysiak, *Polska polityka klimatyczna – analiza czynników politycznych, społecznych i ekonomicznych*. 2013, 120, retrieved 04.06.2016, [polska_polityka_klimatyczna_analiza_czynnikow_politycznych_spoecznych_i_ekonomicznych.pdf](#).

⁵⁴ *Polityka klimatyczna i energetyczna UE...*, 2014

⁵⁵ *Zagrożenia i wyzwania dla międzynarodowej konkurencyjności polskiego przemysłu energochłonnego. Wpływ polityki państwa na obniżenie kosztów produkcji w kontekście wyzwań polityki klimatycznej UE*, (Warszawa: Ministerstwo Środowiska, 2016), 6.

Summing up the EU climate policy, it is worth emphasizing that the implementation of the climate protection policy instruments must be adjusted to the reality present in different Member States. The countries which rely heavily on coal for power are simply not able to achieve deep decarbonization in energy sector quickly and effectively. Different approaches of various countries, to mention only Poland and Germany, to climate issues and renewable energy-based electricity stem from different energy situation in those countries. Poland's current energy policy is based on black coal. Such a policy is completely at odds with the currently implemented German energy policy of *Energiewende* which is seen in our country as a threat to Polish economic interest. German policy of increasing the share of renewable energy as a source of power generation is viewed with a measure of distrust here as Poland cannot quickly and effectively transform its outdated and polluting energy system and implement clean and innovative energy.

Geopolitical challenges of EU energy policy

Geopolitical rivalry of global superpowers for energy raw materials should include the European Union's role in the international arena. As noted by Marcin Kaczmarek in his book *Bezpieczeństwo energetyczne Unii Europejskiej* [*Energy Security of the European Union*], "the geopolitical approach of the European Union energy security efforts is directed at the EU external actors. The geopolitical activities include the dialogue and close cooperation with producer countries, searching for alternative sources of raw materials and new supply routes (competing with other consumers) as well as a multilateral cooperation"⁵⁶.

Currently, the EU's ability to remain a central and influential player in the international energy arena depends on two factors: the political will to be engaged in international processes of global energy markets and the institutional capacity to support initiatives enhancing the EU's energy security. The geopolitical dimension of the European energy policy was put forward for the first time in the 2006 Commission's Green Paper. The document stated priorities for the upgrading and construction of new infrastructure and promoted diversification of gas supplies by bringing them from the Caspian region, North Africa, the Middle East into the heart of the EU as well as identified risks and threats to the security of Europe's energy infrastructure such as natural disasters and terrorism. Moreover, it warned against political risks including interruption of raw material supplies which are critical to the EU energy security⁵⁷.

Energy interdependence between EU and Russia poses a specific challenge or a particular threat and it is also about geopolitical maneuvering to increase

⁵⁶ Marcin Kaczmarek, *Bezpieczeństwo energetyczne Unii Europejskiej*, (Warszawa: Wydawnictwa Akademickie i Profesjonalne, 2010), 98.

⁵⁷ *Zielona Księga - Europejska strategia na rzecz zrównoważonej, konkurencyjnej i bezpiecznej energii*, Bruksela, dnia 8.3.2006 KOM (2006) 105 wersja ostateczna, 8.

influence in Central and Eastern Europe⁵⁸. Although the situation has changed considerably since the Cold War days, still the current Brussels-Moscow relations can only be described as nothing but strained, antagonistic and full of mistrust⁵⁹. A rising demand for raw materials has shaped the EU-Russia relations⁶⁰. On the one hand, Russian natural gas supply to the European market influences the EU energy policies and, on the other hand, the EU countries payments for gas are essential to the functioning of the Russian State.

The European Union is one of the largest natural gas markets in the world which is estimated to be some 520 billion cubic meters per year. Currently, about 23% of gas used in the European Union comes from Russia and the EU biggest gas consuming countries are Germany, Italy and France⁶¹. The joint or block purchasing mechanism of natural gas for the EU was firmly opposed by Germany. Germany argues that the EU block purchasing of natural gas from Russia would result in higher gas prices for German end-users and the procedure would be far too bureaucratic. Germany fears that in case of EU gas supply solidarity purchases, Russia would decide to sell its natural gas at a price higher than currently paid by Berlin. Establishing the block purchasing mechanism for energy raw materials despite the opposition from Germany, the EU should guarantee an option of reverse gas flows and discretionary use of gas post purchase⁶². It is also important to emphasize the need for organizations within the EU that should be charged with the evaluation of the balance between supply and demand⁶³.

The major problem of relations between the EU and Russia seems to have been the self-interest of individual EU countries in energy cooperation with Russia. The most pragmatic in its approach to Russia is Germany which for the sake of its own interests is willing to put other EU member states security and interests at risk. The

⁵⁸ See: Godzimirski, 2009, p. 3; Hóber, 2009, p. 426; Rafael Leal-Arcas, "The EU and Russia as Energy Trading Partners: Friends or Foes?", *European Foreign Affairs Review*. (2009):14(3), 348; James Sherr, "The Russia-EU Energy Relationship: Getting It Right". *The International Spectator*. (2010): 45(2), 55-68; *Towards a New Energy Strategy for Europe 2011-2020*, 2010, 57-59, retrieved 30.05.2016, http://ec.europa.eu/energy/strategies/consultations/2010_07_02_energy_strategy_en.htm.

⁵⁹ Sijber De Jong, Jan Wouters, *European Energy Security Governance: Key – Challenges and Opportunities in EU – Russia Energy Relations*, (Leuven: Centre for Global Governance Studies, 2011), 22.

⁶⁰ See: Michael Fredholm, *The Russian Energy Strategy & Energy Policy: Pipeline Diplomacy or Mutual Dependence?* (London: Conflict Studies Research Centre, 2005); Andrew Monaghan, "Russian Oil and EU Energy Security". *Russian Series*, (2005): 05/65, 1-21; Jesień, Leszek. *The Future of European Energy Security*, (Kraków: Tischner European University, 2006); Pami Aalto, ed. *The EU-Russian Energy Dialogue. Europe's Future Energy Security*, (Aldershot: Ashgate, 2008); Katinka Barysch, ed. *Pipelines, politics and power. The future of EU – Russia energy relations*, (London: Centre for European Reform, 2008).

⁶¹ Agata Łoskot, *Bezpieczeństwo dostaw rosyjskiego gazu do UE – kwestia połączeń infrastrukturalnych*, (Warszawa: Ośrodek Studiów Wschodnich, 2005), 8.

⁶² *Europejska Unia Energetyczna. Kompromis dla rozwoju i dobrej energii*. 2016, 48, retrieved 02.06.2016, http://napedzamyprzyszlosc.pl/files/Raport/PL_Online_light.pdf.

⁶³ Roman Ney, „Niektóre uwarunkowania polskiej polityki energetycznej”. *Polityka energetyczna*, t. 12, z. 2, (2009): 8.

prime example of such conduct is Berlin's approach to the construction of the Nord Stream and Nord Stream-2 natural gas pipelines⁶⁴. These two pipelines will allow for direct natural gas deliveries from the Russian territory to Germany bypassing the transit countries, such as for example Poland. It has to be noted that the gas transmission through the two pipelines allows Russia gain access to the storage facilities in northern Germany and thus expand its presence in the European gas market and that provides maintaining full control over transmission systems such as oil and gas pipelines, running from far away Siberia all the way to Europe⁶⁵. In this situation, the signing of a joint agreement to build the Nord Stream pipeline by German Chancellor Gerhard Schroeder and Russian President Vladimir Putin was perceived in Poland as a breach of EU solidarity by our western neighbors⁶⁶. Controlling the transmission networks across Europe allows Moscow to turn energy into "a tool of intimidation or blackmail" against states opposing Russia's actions in the international arena. Poland should not forgo efforts to diminish Russia's or rather Gazprom's influence in the European energy sector. We should lobby against Russian projects such as and Nord Stream-2 its attempts at undermining the solidarity of countries in the region, for the example the idea of a "bypass"⁶⁷.

The beginning of the second decade of the 21st century has shown that the EU-Russia relations were not the only factors which could weaken the European Union's energy security. The Arab Spring in North Africa caused crude oil prices to surge and brought about a decline in its production. The situation in North Africa put the European Union at a particular risk since many African countries supply energy raw materials to the member states of the Union in Southern Europe,

⁶⁴ Lauren Goodrich, Marc Lanthemann, *The Past, Present and Future of Russian Energy Strategy*, 2013, retrieved 03.06.2016, <https://www.stratfor.com/weekly/past-present-and-future-russian-energy-strategy>.

⁶⁵ Krzysztof Kubiak, *W turbulentnej rzeczywistości. Polska i świat w pierwszych dekadach XXI wieku*. *Komandos*, 1(220), (2012): 12.

⁶⁶ See: Janusz Jartyś, „Stosunki polsko-niemieckie w aspekcie bezpieczeństwa europejskiego”, in: *Bezpiecznie czy niebezpiecznie? Wybrane aspekty globalnej i polskiej polityki bezpieczeństwa na przełomie XX i XXI wieku*, red. Jarosław Piątek, Renata. Podgórska, (Szczecin: Wydawn. Nauk. Uniwersytetu Szczecińskiego, 2007), 120; Piński, 2005, 30; Kamila Pronińska, *Bezpieczeństwo energetyczne w stosunkach UE-Rosja. Geopolityka i ekonomia surowców energetycznych*, (Warszawa: Elipsa. 2012), 291–294; Roman Kuźniar, *Droga do wolności. Polityka zagraniczna III Rzeczypospolitej*, (Warszawa: Wydawnictwo Naukowe Scholar, 2008), 85–87.

⁶⁷ Energy relations between Poland and Russia were clearly undermined by the 2013 situation casting the Polish government in a negative light when Polish EuRoPol GAZ signed a memorandum of understanding with the Russian gas giant Gazprom to build a new gas pipeline bypassing Ukraine. The deal with Russian Gazprom received a lot of media attention and was widely discussed among politicians and energy security experts as it exposed the alleged or apparent lack of knowledge of the most important state officials, at the same time giving the impression that the Moscow government showed more interest in Polish energy sector than the Polish authorities themselves. The EuRoPol Gaz and Gazprom agreement caused outrage in Ukraine which felt betrayed by Poland. Ksawery Czerniewski, *Bezpieczeństwo energetyczne Polski. Szanse, zagrożenia, zadania*. 2015, retrieved 04.06.2016, <https://oaspl.org/2015/09/18/bezpieczenstwo-energetyczne-polski-szanse-zagrozenia-zadania/>.

as well as to Ireland. Another international event which has had direct impact on the EU energy security was the Libyan crisis. The crisis in Libya has significantly disrupted the flow of Libyan oil to the EU and put at risk the security of regional supply of energy raw materials, including imports of natural gas from Algeria. Before the outbreak of the civil war, Libyan oil accounted for 10% of the EU's total oil imports⁶⁸. Civil unrest in North Africa has had an impact on the EU's energy market destabilizing it to a considerable degree⁶⁹.

Summing up the analysis of a geopolitical approach in the EU energy security issues, one should state that the future development of the European energy market must be seen in the international context. Integrating the geopolitical landscape appears to be essential in examining challenges facing the EU energy sector⁷⁰ the more so as geopolitics is a way of 'seeing' the world" provoked by competition among states where energy issues play a fundamental role⁷¹.

Energy Union as an opportunity for energy security of the European Union

In April 2014, the former Polish Prime Minister, and the current President of the European Council - Donald Tusk, proposed a Europe-wide energy union founded on six major pillars: development and financing of infrastructure, strengthening solidarity mechanisms, strengthening the bargaining power of the EU in relation to external suppliers, development of indigenous energy sources in the EU, diversification of energy supply by gas and oil, and reinforcing the European energy community⁷².

In 2015, the European Council also called upon the Member States to establish the European Energy Union incorporating five closely related and mutually reinforcing dimensions⁷³:

- Energy security, solidarity and trust;
- A fully integrated European energy market;
- Energy efficiency contributing to moderation of demand;
- Decarbonizing the economy;
- Research, Innovation and Competitiveness in the energy sector.

⁶⁸ Assarid Ag Imbarcaouane, David Casa, *Dokument roboczy w sprawie politycznych skutków konfliktu libijskiego dla ościennych krajów AKP i państw UE*. 2009, 3, retrieved 06.05.2016, http://www.europarl.europa.eu/meetdocs/2009_2014/documents/acp/dt/882/882006/882006pl.pdf.

⁶⁹ Mehi Amineh, Yang Guang, *China's and the European Union's energy security challenges in the 21st century*. 2012, 22, retrieved 05.06.2016, http://iias.asia/sites/default/files/IAS_NL62_212223.pdf.

⁷⁰ Raphaël Metais, "Ensuring Energy Security in Europe: The EU between a Market-based and a Geopolitical Approach". *EU Diplomacy*, Paper, 3, (2013): 10.

⁷¹ Colin Flint, *Wstęp do geopolityki*, (Warszawa: Wydawnictwo Naukowe PWN, 2008), 29.

⁷² Europejska Unia Energetyczna..., 41.

⁷³ Gregory Papanikos *Energy Security, the European Energy Union and the Mediterranean Countries*. 2015, 11, retrieved 30.05.2016, [http://www.atiner.gr/gtp/Papanikos%20\(2015\)-Energy%20Security.pdf](http://www.atiner.gr/gtp/Papanikos%20(2015)-Energy%20Security.pdf).

The European Commission President, Jean-Claude Juncker, said that “For too long, energy has been exempt from the fundamental freedoms of our Union. [...] I want the energy that underpins our economy to be resilient, reliable, secure and growingly renewable and sustainable”⁷⁴. Vice-President responsible for the Energy Union, Maroš Šefčovič, stated: “Today, we launch the most ambitious European energy project since the Coal and Steel Community. This project will integrate our 28 European energy markets into one Energy Union, make Europe less energy dependent and give the predictability that investors so badly need to create jobs and growth. Today, we set in motion a fundamental transition towards a low-carbon and climate-friendly economy, towards an Energy Union that puts citizens first, by offering them more affordable, secure, and sustainable energy. Together with all other Commissioners who have worked closely on the project team, and with the support of the entire Commission, I am determined to now turn this Energy Union into reality”⁷⁵.

The proposal put forward by Poland to establish the Energy Union should be based on mitigation and emergency/solidarity mechanisms in the event of risks posed to the Community or any of its member state’s energy security.

Summing up the concept of establishing a European Energy Union, it should be pointed out that the project rests upon the unified European internal market. Unfortunately, its realization faces real challenges as energy sector officials of some member states, and Germany in particular, firmly believe in the advantages of their own energy models and are quite reluctant towards interference of EU institutions in their internal energy policy⁷⁶.

Conclusion

Examining the challenges, threats and opportunities of EU energy security policy, it is important to note that these concepts determine the current and future EU energy policy. Challenges of a single market in energy solidarity or the event of its implementation provide the Community with an opportunity for energy systems integration, reducing Europe’s dependence on external supplies of energy raw material as well as moving Europe to the next stage of integration. Normalization of relations between Brussels and Russia in the near future must become a top foreign policy priority. EU’s immediate efforts should be focused on a careful assessment of the benefits, threats and risks Russia presents to the EU.

All this shapes the current EU energy situation and at the same time defines challenges, threats and opportunities of Europe's energy security policy at the beginning of the second decade of the 21st century. At present, however, it is hard to remain optimistic about establishing the European Energy Union on account of

⁷⁴ Komisja Europejska. *Unia energetyczna: bezpieczna, zrównoważona, konkurencyjna energia po przystępnych cenach dla wszystkich Europejczyków*. Bruksela, 2015.

⁷⁵ Ibidem.

⁷⁶ “Europejska Unia Energetyczna” 2016.

both its implementation realities and bureaucracy. EU states do not speak in one voice on energy issues, given the example of Nord Stream, Nord Stream-2 or the differing positions on decarbonization of the EU member states. One can state with conviction that in the immediate future the position of the Member States will not change. The divergence among the states regarding the implementation of the EU energy policy simply reflects different national circumstances in terms of economic, social and historical issues. As noted by Professor Stanisław Koziej, challenges, threats and opportunities of energy security strategy should be carefully identified and examined in order to find the best way to confront them, to counter these risks, to face challenges ahead and to optimize the opportunities (2008).

Bibliography

1. Aalto, Pami. ed. *The EU-Russian Energy Dialogue. Europe's Future Energy Security*. Aldershot: Ashgate, 2008.
2. Ag Imbarcaouane, Assarid. Casa, David. *Dokument roboczy w sprawie politycznych skutków konfliktu libijskiego dla ościennych krajów AKP i państw UE*. 2009. Retrieved May 6, 2016, http://www.europarl.europa.eu/meetdocs/2009_2014/documents/acp/dt/882/882006/882006pl.pdf.
3. Amineh, Mehi, Guang, Yang. *China's and the European Union's energy security challenges in the 21st century*. 2012. Retrieved June 5, 2016, http://ias.asia/sites/default/files/IIAS_NL62_212223.pdf.
4. Barysch, Katinka. red. *Pipelines, politics and power. The future of EU – Russia energy relations*. London: Centre for European Reform, 2008.
5. Belkin, Paul. *The European Union's Energy Security Challenges*. 2008. Retrieved 29.05.2016, <http://www.fas.org/sgp/crs/row/RL33636.pdf>.
6. Bochaczek-Trąbska Joanna. „Bezpieczeństwo energetyczne Polski u progu XXI wieku”. W: Red. Henryk Cwiężka 49-58. Częstochowa: Res Polticae, 2011.
7. *Budżet UE na lata 2014-2020: dotacje głównie na energetykę rozproszoną*. 2014. Retrieved 10.10.2015, <http://gramwzielone.pl/trendy/7944/budzet-ue-na-lata-2014-2020-dotacje-glownie-na-energetyce-rozproszona>.
8. The European Economic And Social Committee and The Regions, *Communication From The Commission To The European Parliament, A Budget for Europe 2020*, Brussels, 29.06.2011.
9. *Connecting Europe Facility*. 2016. Retrieved 27.05.2016, <https://ec.europa.eu/inea/en/connecting-europe-facility>.
10. Czerniewski, Ksawery. *Bezpieczeństwo energetyczne Polski. Szanse, zagrożenia, zadania*. 2015. Retrieved 04.06.2016, <https://oaspl.org/2015/09/18/bezpieczenstwo-energetyczne-polski-szanse-zagrozenia-zadania/>.
11. De Jong, Sijber, Wouters, Jan. *European Energy Security Governance: Key – Challenges and Opportunities in EU – Russia Energy Relations*. Leuven: Centre for Global Governance Studies, 2011.
12. Dośpiał-Borysiak, Katarzyna. *Polska polityka klimatyczna – analiza czynników politycznych, społecznych i ekonomicznych*. 2013. Retrieved 04.06.2016,

- polska_polityka_klimatyczna_analiza_czynnikow_politycznych_spoecznych_i_ekonomicznych.pdf.
13. Dreyer, Iana, Stang, Gerald. *Energy Moves and Power Shifts EU Foreign Policy and Global Energy Security*. Paris: European Union Institute for Security Studies, 2014.
 14. Droga do eldorado łupkowego jednak daleka. 2013. Retrieved 21.12.2013 <http://gieluda.onet.pl/droga-do-eldorado-lupkowego-jednak-daleka,18726,5573543,news-det> al.
 15. Ekstowicz, Bogdan. „Polityka energetyczna i efektywność bezpieczeństwa energetycznego Unii Europejskiej i Polski”. *Elektroenergetyka*, 4 (10), (2011): 115-124.
 16. *Energia*. 2016. Retrieved 04.06.2016, http://europa.eu/pol/ener/index_pl.htm.
 17. *Europejska Unia Energetyczna. Kompromis dla rozwoju i dobrej energii*. 2016. Retrieved 02.06.2016, http://napedzamyprzyszlosc.pl/files/Raport/PL_Online_light.pdf.
 18. Flint, Colin. *Wstęp do geopolityki*. Warszawa: Wydawnictwo Naukowe PWN, 2008.
 19. Fredholm, Michael. *The Russian Energy Strategy & Energy Policy: Pipeline Diplomacy or Mutual Dependence?* London: Conflict Studies Research Centre, 2005.
 20. *Gaz łupkowy wspólnym interesem Unii Europejskiej*. 2011. Retrieved 15.02.2014, <http://buzek.pl/node/7343>.
 21. Goodrich, Lauren, Lanthemann, Marc. *The Past, Present and Future of Russian Energy Strategy*. Retrieved 03.06.2016, <https://www.stratfor.com/weekly/past-present-and-future-russian-energy-strategy>.
 22. Gradziuk, Artur, Karaczun, Zbigniew, Wyciszkievicz, Ernest. *Globalne negocjacje klimatyczne: interesy i wyzwania dla Polski i Unii Europejskiej*. Warszawa: Polski Instytut Spraw Międzynarodowych i Koalicji Klimatycznej, 2011.
 23. Hinc, Agata. (2012). *Transformacja gospodarki w kierunku niskoemisyjnym*. *Studia BAS*, 1(29), 109-136.
 24. Jartyś, Janusz. „Stosunki polsko-niemieckie w aspekcie bezpieczeństwa europejskiego”. In: *Bezpiecznie czy niebezpiecznie? Wybrane aspekty globalnej i polskiej polityki bezpieczeństwa na przełomie XX i XXI wieku*. Ed. Jarosław Piątek, Renata. Podgórzeńska, Szczecin: Wydawn. Nauk. Uniwersytetu Szczecińskiego, 2007.
 25. Jędrzejewska, Sidonia. (2013). „Ochrona klimatu i kapitał ludzki – priorytety budżetowe Unii Europejskiej na lata 2014–2020”. In: *Budżet UE 2014–2020 dla Polski. Jak efektywnie wykorzystać fundusze unijne?* Ed. Sidonia, Jędrzejewska. (9-17). Gliwice: Wokół Nas, 2013.
 26. Jesień, Leszek. *The Future of European Energy Security*. Kraków: Tischner European University, 2006.
 27. Kaczmarek, Marcin. *Bezpieczeństwo energetyczne Unii Europejskiej*. Warszawa: Wydawnictwa Akademickie i Profesjonalne, 2010.

28. Karaczun Zbigniew. *Polityka klimatyczna UE może niekorzystnie wpłynąć na konkurencyjność polskiej gospodarki*. 2014. Retrieved 03.06.2016 <http://www2.deloitte.com/pl/pl/pages/press-releases/articles/Polityka-klimatyczna-ue-konkurencyj-nosc-gospodarki.html>.
29. Komisja Europejska, *Budżet z perspektywy 'Europy 2020'* COM(2011)500 z 29 czerwca 2011.
30. Komisja Europejska, *Ograniczenie globalnego ocieplenia do 2°C w perspektywie roku 2020 i dalszej*, KOM(2007)2, Bruksela, 10.01.2007.
31. Koziej, Stanisław. (2008). Bezpieczeństwo energetyczne elementem większej całości. Artykuł przygotowany na Konferencję SGWP „Bezpieczeństwo energetyczne – współczesny wymiar bezpieczeństwa narodowego”, 24.04.2008.
32. Kubiak, Krzysztof. *W turbulentnej rzeczywistości. Polska i świat w pierwszych dekadach XXI wieku*. Komandos, (2012): 1 (220).
33. Kuźniar, Roman. *Droga do wolności. Polityka zagraniczna III Rzeczypospolitej*. Warszawa: Wydawnictwo Naukowe Scholar, 2008.
34. Leal-Arcas, Rafael. “The EU and Russia as Energy Trading Partners: Friends or Foes?”, *European Foreign Affairs Review*. (2009):14(3), 337-366.
35. Łoskot, Agata. *Bezpieczeństwo dostaw rosyjskiego gazu do UE – kwestia połączeń infrastrukturalnych*. Warszawa: Ośrodek Studiów Wschodnich, 2005.
36. Mellár, Balázs. *Polityka energetyczna: zasady ogólne*. 2016. Retrieved 29.05.2016, http://www.europarl.europa.eu/ftu/pdf/pl/FTU_5.7.1.pdf.
37. Metais, Raphaël. “Ensuring Energy Security in Europe: The EU between a Market-based and a Geopolitical Approach”. *EU Diplomacy*, (2013): Paper 3, 1-31.
38. Miciuła, Ireneusz. „Polityka energetyczna Unii Europejskiej do 2030 roku w ramach zrównoważonego rozwoju”. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*, (2015): 42, T. 20, 57-67.
39. Misiągiewicz, Justyna. „Bezpieczeństwo energetyczne Unii Europejskiej”, In: *Poziomy analizy stosunków międzynarodowych*, red. Edward Haliżak, Marek Pietraś, 373-392. Warszawa: Polskie Towarzystwo Stosunków Międzynarodowych i Wydawnictwo Rambler, 2015.
40. Młynarski Tomasz. *Uwarunkowania i dylematy bezpieczeństwa energetycznego Unii Europejskiej – czyli co z tym gazem?*, Brief programowy Instytutu Kościuszki, (2010): 1-8.
41. Monaghan, Andrew. “Russian Oil and EU Energy Security”. *Russian Series*, (2005): 05/65, 1-21.
42. Müller, Jens. (2016). *Nord Stream 2 selects suppliers for major pipe tender*. 2016. Retrieved 28.05.2016, http://www.nord-stream2.com/media/news/press_releases/en/2016/03/nord-stream-2-selects-suppliers-for-major-pipe-tender_K7Qv9an.pdf.
43. Müller, Kraenner Sascha. *Bezpieczeństwo energetyczne, nowy pomiar świata*. Szczecin: Wydawnictwo Z Naszej Strony, 2008.

44. Muszyński, Mariusz. *Europejska solidarność – obowiązek czy akt woli politycznej?* 2015. Retrieved 30.05.2016, <https://oaspl.org/2015/09/07/europejska-solidarnosc-obowiazek-czy-akt-woli-politycznej/>.
45. Ney Roman. „Niektóre uwarunkowania polskiej polityki energetycznej”. *Polityka energetyczna*, (2009): t. 12, z. 2, 5-17.
46. Ney Roman. „Uwagi w sprawie polityki energetycznej Unii Europejskiej”. *Polityka energetyczna*, (2007): t. 10, Zeszyt specjalny 2, 663-669.
47. *Opinia merytoryczna i prawna w sprawie wniosku dotyczącego rozporządzenia Parlamentu Europejskiego i Rady ustanawiającego instrument „Łącząc Europę”*, (KOM(2011) 665 wersja ostateczna). Warszawa: Komisja ds. Unii Europejskiej, 2011.
48. *Pakiet klimatyczno-energetyczny: analityczna ocena propozycji Komisji Europejskiej*. Warszawa: Urząd Komitetu Integracji Europejskiej, 2008.
49. Papanikos Gregory. *Energy Security, the European Energy Union and the Mediterranean Countries*. 2015. Retrieved 30.05.2016, [http://www.atiner.gr/gtp/Papanikos%20\(2015\)-Energy%20Security.pdf](http://www.atiner.gr/gtp/Papanikos%20(2015)-Energy%20Security.pdf).
50. Pastuszka, Sławomir. „Bezpieczeństwo energetyczne Unii Europejskiej z uwzględnieniem polityki spójności”. In: *Pomiędzy światem polityki a życiem naukowym. Księga jubileuszowa dedykowana Profesorowi Wojciechowi Saletrze*. Red. Jaskiernia Jerzy., Kubicki Radosław (489-500), Kielce: UJK, 2015.
51. *Polityka ekologiczna państwa w latach 2009-2012 z perspektywą do roku 2016* Warszawa: Ministerstwo Ochrony Środowiska, 2008.
52. Pronińska Kamila. *Bezpieczeństwo energetyczne w stosunkach UE–Rosja. Geopolityka i ekonomia surowców energetycznych*. Warszawa: Elipsa. 2012.
53. Pronińska Kamila. „Geopolityka surowców energetycznych – trendy globalne i regionalne po kryzysie finansowym”. *Rocznik Strategiczny*, (2010/2011): 261-282.
54. Puch-Gurgul Agnieszka. (2013). Perspektywy wykorzystania gazu łupkowego w energetyce Unii Europejskiej. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego*, 21, 21-77.
55. Raport z debaty „Perspektywa rynków energii, a unia energetyczna” pod patronatem Społecznej Rady ds. Zrównoważonego Rozwoju Energetyki (2015). Warszawa: Ministerstwo Środowiska.
56. Riley, Alan. „Europejskie złoża gazu niekonwencjonalnego jako alternatywa wobec gazowej zależności od Rosji”. In: *Wpływ wydobywania gazu łupkowego na rozwój społeczno-ekonomiczny regionów – amerykańskie success story i potencjalne szanse dla Polski*. (89-100). Kraków: Instytut im. Tadeusza Kościuszki, 2012.
57. Rosicki, Remigiusz. *Europejska polityka energetyczna – między solidaryzmem a egoizmem*. 2007. Retrieved 30.10.2013, http://www.academia.edu/1913376/Europejska_polityka_energetyczna-miedzysolidaryzmem_a_egoizmem.

58. Ruszel, Mariusz. *Kierunki rozwoju polityki energetycznej UE*. 2009. Retrieved 06.06.2016, <http://www.psz.pl/119-energia/mariusz-ruszel-kierunki-rozwoju-polityki-energetycznej-ue>.
59. Saletra, Wojciech, Mitręga, Adrian. „Kwestia wydobycia gazu łupkowego w debacie energetycznej Parlamentu Europejskiego”. *Studia Humanistyczno – Społeczne*, (2014): tom IX, 125-145.
60. Sherr, James. “The Russia-EU Energy Relationship: Getting It Right”. *The International Spectator*, (2010): 45(2), 55-68.
61. Skomudek, Waldemar. (2015). Odnaleźć się na wspólnym rynku energii. 2015. Retrieved 30.05.2016, <http://cse.ibnigr.pl/odnalezc-sie-na-wspolnym-rynku-energii/>.
62. Świeboda, Paweł. *Strategiczne wyzwanie dla Unii Europejskiej. Kształtowanie zewnętrznego wymiaru polityki energetycznej*. Warszawa: Centrum Strategii Europejskiej, 2009.
63. Teluk, Tomasz. *Perspektywy energetyki jądrowej w Polsce – raport Instytutu Globalizacji w ramach projektu “Atom dla Polski”*. Warszawa: Fundacja Instytut Globalizacji, 2010.
64. *Towards a New Energy Strategy for Europe 2011-2020*, 2010. Retrieved 30.05.2016, http://ec.europa.eu/energy/strategies/consultations/2010_07_02_energy_strategy_en.htm.
65. Komisja Europejska. *Unia energetyczna: bezpieczna, zrównoważona, konkurencyjna energia po przystępnych cenach dla wszystkich Europejczyków*. Bruksela, 2015.
66. *Vertrag über Europa. Verfassung für Europa*. Luxemburg: Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaften, 2003.
67. Wróbel, Paweł. *Wpływ Rosji na współczesne bezpieczeństwo energetyczne Unii Europejskiej*. 2008. Retrieved 03.05.2016, <http://www.psz.pl/117-polityka/pawel-wrobel-wplyw-rosji-na-wspolczesne-bezpieczenstwo-energetyczne-unii-europejskiej>.
68. *Zagrożenia i wyzwania dla bezpieczeństwa energetycznego Unii Europejskiej*. 2013. Retrieved 24.05.2016, <http://stosunki-miedzynarodowe.pl/bezpieczenstwo/1538-zagrozenia-i-wyzwania-dla-bezpieczenstwa-energetycznego-unii-europejskiej>.
69. *Zagrożenia i wyzwania dla międzynarodowej konkurencyjności polskiego przemysłu energochłonnego. Wpływ polityki państwa na obniżenie kosztów produkcji w kontekście wyzwań polityki klimatycznej UE*. Warszawa: Ministerstwo Środowiska, 2016.
70. Zakrzewska, Olga. *Bezpieczeństwo energetyczne w stosunkach Rosja – Unia Europejska w kontekście współzależności eksportowo-importowych*. 2016. Retrieved 04.06.2016, <http://kolegia.sgh.waw.pl/pl/KES/kwartalnik/Documents/KES17OZ.pdf>.
71. Zborowska Monika. (2016). Nord Stream II – implikacje dla polityki energetycznej Unii Europejskiej. *Pański Policy Papers*, 09.02.2016, 1-7.

72. Zielona Księga - Europejska strategia na rzecz zrównoważonej, konkurencyjnej i bezpiecznej energii, Bruksela, dnia 8.3.2006 KOM (2006) 105 wersja ostateczna.

Abstract

The energy security policy of the European Union at the beginning of the 21st century has become a multi-dimensional concept. Today, we can view it in the context of challenges, threats and opportunities which effectively shape the energy policy of Brussels. On the one hand, the lack of a consensus on the current energy policy and the increasing demand for energy raw materials determine the challenges and threats for the EU's energy security. On the other hand, the political will towards an EU common energy policy, EU's improved energy efficiency, and the development of renewable energy sources to protect the climate have provided the European Union with an opportunity to establish a comprehensive energy policy based on solidarity among Member States. The purpose of this paper is to present a broad assessment of the European Union energy policy in the context of challenges, threats and opportunities affecting policy formulation.

Polityka bezpieczeństwa energetycznego Unii Europejskiej w obliczu wyzwań, zagrożeń oraz szans początku drugiej dekady XXI w.

Polityka bezpieczeństwa energetycznego Unii Europejskiej na początku XXI wieku stała się wielowymiarowym pojęciem. Obecnie możemy je rozpatrywać w kontekście wyzwań, zagrożeń oraz szans, które w sposób rzeczywisty kształtują prowadzoną przez Brukselę politykę energetyczną. Z jednej strony, brak jedności w prowadzonej polityce energetycznej, czy zwiększające się zapotrzebowanie na surowce energetyczne określają wyzwania oraz zagrożenia dla bezpieczeństwa energetycznego UE. Z drugiej strony polityczna wola ku uwspólnotowieniu polityki energetycznej UE, poprawa efektywności energetycznej, czy rozwój odnawialnych źródeł energii w celu ochrony klimatu określają szansę Unii Europejskiej na urzeczywistnienie wszechstronnej polityki energetycznej opartej na solidarności państw członkowskich. Celem artykułu jest próba całościowej oceny polityki energetycznej Unii Europejskiej przez pryzmat wyzwań, zagrożeń oraz szans wpływających na kształtowaną przez UE politykę energetyczną.

Key words

EU energy security, energy solidarity, an Energy Union

Słowa kluczowe

bezpieczeństwo energetyczne UE, solidarność energetyczna, Unia energetyczna

Wojciech Saletra, date of birth 26.09.1955; 2012 - Dean of the Faculty of Management and Administration at the Jan Kochanowski University in Kielce, Poland .Professor at the Jan Kochanowski University in Kielce, Poland; lectures with: public administration, system of administration of order and the public safety, history of administration. In 2007 - Ph.D. habilitated, the Nicolaus Copernicus University in Torun, Poland.