



Strategies of Central European countries in the energy dimension during the Russian-Ukrainian war

Michał Paszkowski

DOI: <https://doi.org/10.62316/ZZDT2905>

Abstract: The Russian-Ukrainian war had a significant impact on the energy situation of Central European countries and significantly influenced the need to activate efforts to diversify the sources and directions of energy supply, as well as activities to reduce natural gas demand. The energy dependence built over the years by the Russian Federation was characterized primarily by the development of infrastructure and the conclusion of long-term contracts. The aim of the article was to analyze the activities of the Central European countries of the European Union during the Russian-Ukrainian war and to define the key activities that were primarily undertaken in 2022 towards ensuring energy security. The starting point was the thesis that the Central Europe countries made optimal use of the existing energy infrastructure, which made it possible to reduce the impact of the Russian Federation on the energy security of this countries and ensure the availability of commodity.

Key words: Central Europe, energy security, Russian Federation, natural gas, crude oil

Introduction

Central European countries were in a difficult political and economic position when the Russian Federation launched its full-scale aggression against Ukraine in February 2022. Undoubtedly, the war came as a great surprise and forced the countries of the region to reorganize, in many cases, the entire supply chain of energy resources. Under these conditions, it was necessary to take action on many dimensions, a key aspect of which was energy, given the heavy dependence of Central European countries on commodity supplies from the East.

For years, the Russian Federation has been expanding its energy infrastructure and seeking to make Central European countries as dependent as possible on energy supply. The measures taken were related to Russia's implementation of the Falin-Kvitsky doctrine in this part of Europe (Mróz, Paszkowski 2023: 69-82). Thus, its policy was directed, on the one hand, at reducing the importance of Ukraine for natural gas transit (vide the construction of the Nord Stream 1, Nord Stream 2 and TurkStream pipelines), while at the same time concluding long-term natural gas supply contracts, thus reducing competitiveness in Europe.

With the outbreak of war in February 2022, Central European countries were forced to take a set of measures to ensure energy security and thus minimize the possibility of energy supply disruptions. In this regard, measures were taken both on the supply side (diversification of sources and directions of energy supply) and on the demand side (reduction of demand for commodities). A key aspect of enabling such measures was the existing and developed import infrastructure. At the same time, an important aspect of the measures taken was the strengthening of cooperation with key exporters of crude oil and natural gas in the world (including Algeria, Azerbaijan, Norway, the US).

The aim of the article was to analyze the actions of the Central European countries of the European Union during the Russian-Ukrainian war and to define the key actions that were taken

primarily in 2022 towards ensuring energy security. The measures introduced were part of a strategy that aimed, on the one hand, to ensure the functioning of the economy (defensive element), and at the same time to ensure freedom of action when sanctions were imposed on the aggressor (positive element). The starting point was the thesis that Central Europe countries made optimal use of the existing energy infrastructure, which made it possible to limit the impact of the Russian Federation on the energy security of the countries and ensure the availability of commodities. Despite this, given the nature of the energy markets, the war led to an increase in the price of commodities, which had a direct impact on the state of the economy of these countries.

Energy dependence on the Russian Federation

For many years, the Central Europe countries remained energy dependent on the Russian Federation, which affected the nature and type of pursued energy supply policy. Such a situation was related both to the perception by countries in the region of Russia as a guarantor of security (stable commodities supply), the availability of natural gas and crude oil from that direction, and the lack of political acceptance (partly also due to the strong influence of Russian lobbying) for the implementation of costly projects to diversify the sources and directions of crude oil and natural gas supplies.

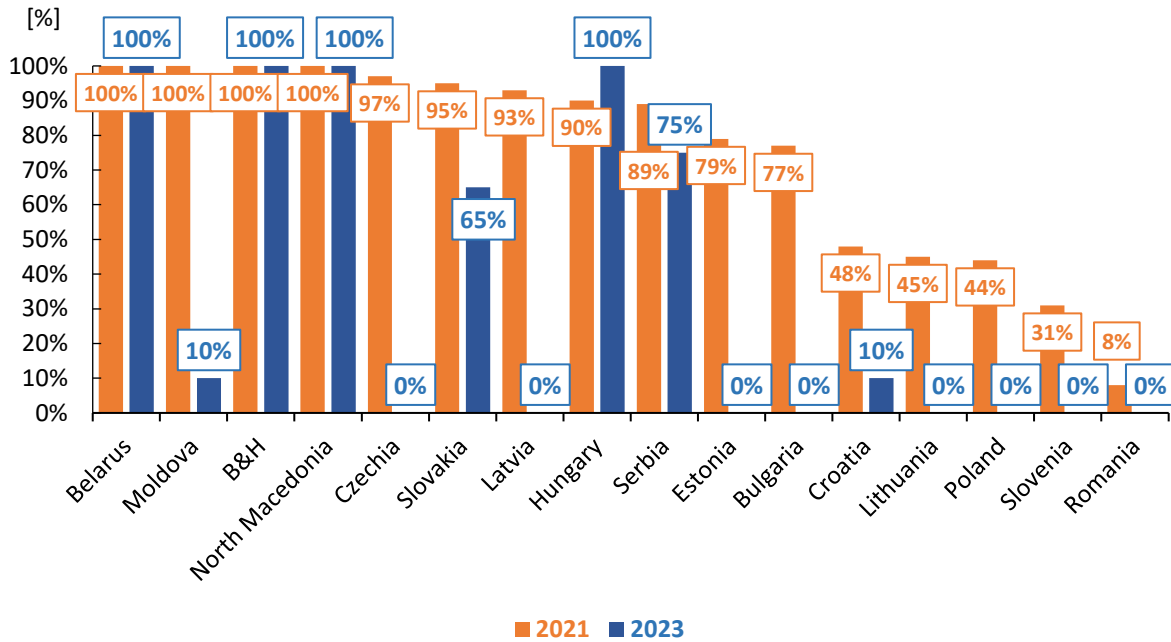
The armed attack by the Russian Federation on Ukraine in 2022 changed the perception of the aggressor in Central Europe and the actions taken by the authorities in Moscow in the international community. The negative assessment of the aggression caused countries in the region, partly also influenced by the position of the European Union as a whole, to take active measures aimed at replacing crude oil and natural gas supplies from the Russian Federation as soon as possible. Importantly, the level of energy dependence before the outbreak of war was different, which meant that the scope of the measures taken and the subsequent strategy adopted differed from country to country.

Before the war, the Russian Federation was an important supplier of crude oil to refineries in Central European countries. There are a total of 12 refineries in the region, which imported crude oil. Russia crude oil has played a key role in the facilities of most countries over the years, and investment projects have also been carried out under the Russian (Urals) grade. Importantly, the modernization and development work was primarily concerned with increasing the depth of crude oil processing, rather than building other plants or focusing on processing other grades. At the same time, an important aspect related to the operation of the refining sector was the existing infrastructure, which enabled the supply of crude oil from east to west. It was through the Druzhba pipeline that most refineries in Central Europe were supplied (Paszkowski 2022: 13-32).

Undoubtedly, both in terms of technology and infrastructure, the cooperation of Central European countries with the Russian Federation was essential and determined the level of liquid fuels produced. Only companies with access to alternative crude oil sources (mainly located on maritime basins) made efforts to change the structure of crude oil supply. Importantly, this was a difficult process, as crude oil from the Russian Federation was in most cases optimal for refineries in the region (the ideal grade in terms of optimizing processing and liquid fuels production), while being relatively comparable in price to other grades, and often cheaper.

Therefore, a large part of the available non-Russian crude oil was only a supplement to Russian crude for refining facilities.

Fig. 1. Russia's share of gas deliveries to CEE countries (2021 vs. 2023)



Source: Compiled by the author based on International Energy Agency.

With regard to natural gas, the situation was comparable and the level of energy dependence of Central European countries on the supply of this commodity was mainly due to the availability of Russian natural gas in this part of the continent, which was related to the existing infrastructure. At the same time, a characteristic feature of the natural gas market was the conclusion of long-term contracts (10-20 years) which, in terms of investment, made it possible to guarantee the costs incurred for investments, but at the same time influenced the growing energy dependence between the exporter and importer. Importantly, it should be pointed out that in many Central European countries there were political parties advocating the implementation of joint energy projects with the Russian Federation, which also affected the intensity and depth of political-energy relations.

The level of dependence of Central European countries on the Russian Federation varied in February 2022, as the country was perceived differently in international relations. Undoubtedly, there was a large share of its supply in the Baltic States, with the existing infrastructure, mainly the Klaipeda LNG terminal in Lithuania (Sytas 2022), creating conditions for increasing natural gas supplies from other directions. Also high was the level of dependence among the Visegrad Group countries, which forced a different response to natural gas supplies from the Russian Federation. In Poland, the LNG terminal in Swinoujscie, natural gas production and interconnections (Germany, Slovakia, Lithuania) played the biggest role. For Czechia, access to transmission infrastructure operating in Germany was key, while Slovakia has only partially given up on importing natural gas from the Russian Federation. In contrast, Hungary, for which Russia was for years the guarantor of energy security, continued to supply natural gas from that country (Preussen 2022). The situation was different for Slovenia, Croatia and Bulgaria, as

these countries were able to rapidly increase supplies from other directions (LNG terminal on Krk Island in Croatia and the subsequent Bulgaria-Greece interconnector played a big role here). As for Romania, the country is a large natural gas producer, so the level of dependence on natural gas supplies from the Russian Federation was small.

The outbreak of the Russian-Ukrainian war took place in February 2022, a period when all underground natural gas storage facilities in Central European countries were set to extrude natural gas. Supporting, for the subsequent efforts to ensure energy security, were weather conditions (warm winter), which resulted in the storage facilities not being fully utilized. At the same time, the increase in natural gas prices on international market meant that many LNG cargoes originally destined for the Asia-Pacific region were subsequently redirected to Europe. Also, measures taken to reduce the level of demand for this commodity meant that there was no shortage of natural gas availability in Europe.

In summary, it should be pointed out that the level of energy dependence of Central European countries on the Russian Federation before the outbreak of the Russo-Ukrainian war varied and was due to a number of factors, the key one being the existing infrastructure and the perception of Russia in the country. Undoubtedly, only a handful of countries prior to the outbreak of the war took active steps to change the structure of energy supplies and thus initiated investment projects many years ago. Importantly, despite the difficulties of a logistical nature, it was possible in 2022 to reduce the level of energy dependence of Central European countries that implemented appropriate strategies in this regard.

Mechanisms used during the war

The Russian Federation's armed attack on Ukraine in 2022 came as a shock to most Central European countries. Importantly, only a handful of countries prior to this period had taken active steps to build a more diversified commodities supply structure and had developed infrastructure in this regard, including mainly natural gas pipelines. The lack of adequate action before 2022 influenced the need to develop a new strategy in the changed political and market environment.

Among Central Europe countries, the level of dependence on the energy supply was different before 2022, and at the same time the share of individual energy commodities in energy mix was different. Under these conditions, the countries of this region have differently initiated activities to enhance energy security. In this context, a set of eight activities can be distinguished. Firstly – maximizing the existing import capacity of the already existing LNG terminals (Swinoujscie, Klaipeda, Krk), which enabled natural gas supply diversification. Importantly, in 2022, but before the outbreak of war, LNG deliveries took place, but only to the Klaipeda LNG terminal (0.31 bcm in 2021 versus 0.29 bcm in 2020) and the terminal on the island of Krk in Croatia (one cargo – 0.08 bcm in April 2021) (Elh 2022). A key aspect of the activities undertaken was the establishment of cooperation with new natural gas suppliers and the continuation of cooperation with existing trading partners. Consequently, there was an opportunity to build a more diversified supply structure.

Secondly – the continuation of commodity imports from the Russian Federation and the abandonment of supplies when political conditions changed. The outbreak of the Russian-Ukrainian war took place in the autumn-winter period, when the process of extrusion of natural gas from underground gas storage facilities of this commodity was underway. Therefore, some

countries decided to continue imports. However, the mechanism introduced by the Russian Federation for payment in the Russian currency (ruble) for the purchased natural gas caused many companies to decide to abandon such a solution (Papadia, Demertzis 2022). Such a stance caused Gazprom to unilaterally break contracts for natural gas supplies to Poland, Bulgaria, Finland, among others (Pokharel, Thompson 2022).

Thirdly – expansion of new import capacities aimed at securing natural gas supplies from directions other than the Russian Federation. In this context, the key activities were the construction of new regasification terminals (Inkoo in Finland – a joint project with Estonia) (Paszkowski 2022) and interconnectors (completion of the Poland-Lithuania, Poland-Slovakia, Bulgaria-Greece pipelines). As a result, there has been an increase in natural gas import capacity. At the same time, the completion of several energy projects in the region meant that there was an opportunity to increase trade between countries in the region. A key project was the construction of the Greece-Bulgaria Interconnector (IGB), which allowed natural gas supplies from Azerbaijan to Central European countries (Paszkowski 2023a).

Fourthly – participation in new energy projects that enable natural gas supply contracts through new import channels. In this case, it was possible to participate in equity in regasification projects or to conclude binding supply contracts through another import channel. This type of solution was used by the state-owned ČEZ a.s. company from Czechia, which concluded an agreement to reserve the import capacity of the Eemshaven LNG terminal in the Netherlands (opened September 8, 2022) with an import capacity of 8 bcm per year and ČEZ a.s. has a guaranteed capacity of 3 bcm per year (Gazdík 2022), which corresponds to 35% of domestic needs. In addition to access to import infrastructure, an important aspect of this was the use of existing gas pipelines that previously allowed the transportation of natural gas from the Russian Federation (this type of situation was primarily the case with the OPAL, EUGAL and STEGAL pipelines in Germany).

Fifthly – the acquisition of assets owned by the Russian Federation in Central Europe. The key problem as late as 2021 was the level of filling of underground natural gas storage facilities, as from mid-2021 Gazprom did not fill the storage facilities it owned/co-owned in Europe (storage facilities in Austria, the Netherlands, Germany, Serbia, Czechia). As for the Czechia the storage capacity owned by Moravia Gas Storage a.s.¹ of the Dambořice underground natural gas storage facility (448 mcm, or 13% of the total Czechia storage capacity) and leased by Gazprom was being filled. Nevertheless, in order to ensure energy security, in 2022 the government in Prague introduced an amendment to the Energy Act, under which the state could seize unused storage capacity and "sell" it at auction to other companies (Cyrus 2022).

Sixthly – a reduction in the level of demand for natural gas. The Russian-Ukrainian war made it necessary for Central European governments to take action not only on the supply side (search for new sources of natural gas supply), but also on the demand side. Thus, mechanisms were put in place to save energy. Nevertheless, in this case the key aspect was the price of commodities. The large increase in natural gas quotations caused companies in Central European countries to take two actions: 1) they reduced economic activity, as exemplified by the chemical sector (e.g., the reduction of production by the Lithuanian company Achema AS);

¹ The underground natural gas storage belonged to a joint venture, namely Gazprom and MND (Moravske naftove doly), which is part of the KKCG holding company of Czechia billionaire Karel Komarek.

2) many companies, if possible, used other energy carriers (coal, heavy fuel oil) as part of the so-called fuel-switching process. As a result, Central European countries saw a 17% drop in natural gas demand in 2022 compared to 2021.

Seventhly – the continuation of natural gas supplies and the conclusion of new contracts to import the resource from the Russian Federation. While most Central European countries condemned the armed attack by the Russian Federation on Ukraine in February 2022, there were also countries that continued economic cooperation with the aggressor. Under these circumstances, such action was taken by the government in Budapest, which also increased commodities supply from the East under such circumstances. Another, of this type, was to receive permission to derogate regulations for crude oil supplies via the Druzhba pipeline. Consequently, the strategy of Hungary (only partly by Slovakia and Czechia), was not to diversify the sources and directions of energy supply, but to continue trade with the Russian Federation, which is treated as a guarantor of energy security.

Eighthly – the release of crude oil and liquid fuels stocks. The launch of the armed attack by the Russian Federation on Ukraine in February 2022 had an overwhelming impact on the global crude oil market. Russia is one of the largest producers and exporters of crude oil, and the sanctions introduced in connection with the war by the US and EU countries, among others, were aimed at limiting the availability of the country's crude oil on international markets. It was originally estimated that Russia would be forced to reduce its crude oil production by up to 3 million barrels/day (International Energy Agency 2022). The potential gap in crude oil from this country could have shaken the global economy, and for this reason OECD countries decided to release accumulated crude oil and liquid fuel stocks twice, for a total of about 182.7 million barrels (62.6 million barrels and 120 million barrels).

To recapitulate, it should be pointed out that the strategies adopted by the Central European countries in the direction of ensuring energy security varied, which was due to the different level of dependence on energy supplies from the Russian Federation. Undoubtedly, the main characteristic of the activities undertaken was the need to diversify the sources of natural gas and crude oil based on existing, as well as new energy infrastructure. An important aspect of the activities undertaken was also the acquisition of assets of companies with Russian capital in key elements of energy infrastructure (such as storage facilities). Importantly, also part of the chosen strategy was to continue supplying commodities from the aggressor, as was the case with Hungary.

Importance of energy infrastructure

A change in the strategy of Central European countries towards the realization of alternative energy supplies was made possible by completed infrastructure projects. During the Russian-Ukrainian war period, new investments were also initiated to increase import and transmission capacities along the north-south route for natural gas. In this context, one can point to several projects that led to an increase in the energy security of Central European countries and were an important tool in the implemented energy policy.

Ensuring energy security in the region required the expansion of import capacity and interconnections between countries in the area of natural gas. In this context, several investments in the construction of LNG terminals and interconnectors were fundamental to increasing the availability of natural gas from outside the Russian Federation in Central European countries.

First – the FSRU LNG terminal in Inkoo, Finland (Exemplar ship), as a joint Finnish-Estonian investment to increase the supply of natural gas to the Baltic States with a regasification capacity of 5 bcm per year. Second – expansion of the import capacity of the Klaipeda LNG terminal in Lithuania from 3.75 bcm/year to 5 bcm/year (no information on the timing of the investment). Third – expansion of the Swinoujscie LNG terminal in Poland from its current import capacity of 6.2 bcm to 8.3 bcm in 2023. Fourth – the construction of an FSRU-type LNG terminal in Gdansk, Poland, with an import capacity of perhaps 12 bcm (two options are being considered, i.e. the construction of one larger terminal, or two smaller ones, which will depend on interest from other Central European countries, i.e. Czechia. and Slovakia and possibly Ukraine), to be built by 2028. Fifth – expansion of the regasification capacity of the LNG terminal on Krk Island in Croatia from 2.9 bcm to 6.1 bcm per year (according to government declarations), to be completed by 2029². Sixth – the construction of the Poland-Lithuania interconnector. The pipeline became operational in May 2022 and enabled the integration of the Baltic States into the European Union market. At the same time, due to its bi-directional opportunity (2.4 bcm on the route from Poland to Lithuania and 1 bcm from Lithuania to Poland), it is possible to supply both from Poland's gas system to Lithuania and to supply natural gas also from the LNG terminal in Klaipeda to Poland. Seventh – the construction of the Poland-Slovakia interconnector. Commissioned at the end of August 2022, the pipeline allows natural gas transmission of 5.7 bcm per year towards Poland and 4.7 bcm per year towards Slovakia. Eighth – the construction of the Greece-Bulgaria interconnector which was built and put into operation in October 2022. The pipeline with a transport capacity of 3 bcm per year enables the supply of natural gas from Greece to Bulgaria (Paszkowski 2023b; Paszkowski 2023c). Consequently, there was an opportunity to increase the diversification of sources and directions of natural gas supplies to Central European countries. The pipeline itself allowed for increased availability of Azerbaijani natural gas in the region, which increased the importance of the country for regional energy security (Zespół ThinkTank Trójmorze 2022).

Undoubtedly, through the implementation of these investments, there has been an increase in market liquidity in Central European countries through greater trade. At the same time, the commissioning of pipelines and terminals on schedule (projects that have been underway for several years) or at a rapid pace (most notably, the Inkoo LNG terminal) has increased the energy security of countries from this region. Import capacity is important enough today, which means that some projects (vide the FSRU-type LNG terminal in Skulte) will not be implemented, as the already existing infrastructure guarantees adequate transportation of natural gas.

In conclusion, it should be stated that if infrastructure projects it were not initiated in the last few years (including the Poland-Denmark, Poland-Lithuania, Poland-Slovakia, Bulgaria-Greece gas pipelines), there would be no possibility of ensuring the security of natural gas supplies in Central European countries. Under these conditions, the Russian-Ukrainian war could be a factor that would prompt the Russian Federation to use energy blackmail as part of its energy policy. While there was ultimately a unilateral termination of Gazprom's contracts to supply natural gas to Poland, Bulgaria and Finland, among others, energy security was ensured in 2022 through investments planned in advance and implemented in a timely manner.

² In the Central European countries, the construction of an FSRU-type LNG terminal in Skulte, Latvia, with an import capacity of 1.5 bcm per year was also originally planned, but the country's government finally abandoned the project in August 2023 (A'Hearn 2023).

Conclusions

Central European countries, with the outbreak of the Russian-Ukrainian war in February 2022, had to take active measures to ensure energy security. Actions taken by the Russian Federation over the years in the energy dimension served to build dependence on the supply of energy resources and were intended, in principle, to limit the possibility of introducing sanctions against Russia at the time of an armed attack on Ukraine. It was thanks to the Nord Stream 1, Nord Stream 2 (which was not certified) and TurkStream/Balkan Stream pipelines that were built that there was an opportunity to "bypass" Ukraine and provide direct natural gas supplies to Western European and Central European countries. Consequently, prior to the application of military action, there were numerous political, propaganda and energy measures to counter potential sanctions on the aggressor.

At the outbreak of the war, the Central Europe countries took numerous measures to both ensure the availability of energy resources and reduce demand. Within the framework of the strategies adopted, the activities undertaken included such measures as the release of crude oil and liquid fuels from stocks, diversification of natural gas and crude oil supplies through the conclusion of new contracts, expansion of import infrastructure, maximization of import capacity and the acquisition of Russian assets. Undoubtedly, taking into account both the scale of dependence and the specifics of the market, the most important activities of a strategic nature were undertaken in the area of natural gas.

Reducing energy dependence on the Russian Federation was also possible by building and completing the expansion of energy infrastructure. In 2014, at the time of the annexation of the Crimean peninsula by the Russian Federation, Central European countries were not ready to reduce their energy dependence on Russia. However, within a few years they were able to systematically increase their import capacity. Such activity also involved the expansion of import infrastructure (LNG terminals) and between countries (interconnectors). As a result, in 2022 the countries of the region were able to reduce their dependence on the Russian Federation and actively take steps to implement sanctions on the aggressor.

In conclusion, it should be pointed out that Central Europe countries, through the used mechanisms and adopted strategies, were able to ensure energy security and thus reduce the impact of the Russian Federation on the level of security. Through the comprehensive use of existing infrastructure and the expansion of import, as well as transport capacities, the conditions were created for the imposition of numerous sanctions on the aggressor, including those of an energy nature. The strategies adopted, while different for individual countries, have proven to be effective.

Bibliography

1. A'Hearn B., *Latvian government abandons Skulte LNG project*, “Argus Media”, 29.08.2023, <https://www.argusmedia.com/en/news/2483972-latvian-government-abandons-skulte-lng-project?backToResults=true> (accessed: 01.09.2023).
2. Cyrus C., *Czech govt confiscates unused gas storage capacity*, “Natural Gas World”, 17.08.2022, <https://www.naturalgasworld.com/prague-confiscates-13-unused-gas-stores-including-gazproms-press-100293> (accessed: 18.08.2023).
3. Elh D., *Lithuania breaks free from Russian energy*, “Deutsche Welle”, 5.10.2022, <https://www.dw.com/en/how-lithuania-is-freeing-itself-from-russian-energy/a-61738474> (accessed: 22.08.2023).
4. Gazdík R., *The first ship carrying LNG for the Czech Republic reaches Eemshaven, the Netherlands*, “CEZ”, 20.09.2022, <https://www.cez.cz/en/media/press-releases/the-first-ship-carrying-lng-for-the-czech-republic-reaches-eemshaven-the-netherlands-163773> (accessed: 22.08.2023).
5. International Energy Agency, *Oil Market Report. March 2022*, Paris 2022, <https://www.iea.org/reports/oil-market-report-march-2022> (accessed: 14.08.2023).
6. Mróz M., Paszkowski M., *Russia's Falin-Kvitsinsky Energy Doctrine: History and Experience Applied to Selected Central European Countries*, “Torun International Studies”, vol. 2, no 18, 2023.
7. Papadia F., Demertzis M., *A sanctions counter measure: gas payments to Russia in rubles*, “Bruegel”, 19.04.2022, <https://www.bruegel.org/blog-post/sanctions-counter-measure-gas-payments-russia-rubles> (accessed: 22.08.2023).
8. Paszkowski M. (a), *Azerbaijan's growing role in ensuring the energy security of Central European countries*, “Komentarze IeŚ”, 29.08.2023, <https://ies.lublin.pl/en/comments/azerbaijans-growing-role-in-ensuring-the-energy-security-of-central-european-countries/> (accessed: 30.08.2023).
9. Paszkowski M. (b), *Czechy i Słowacja: kontynuacja wysiłków na rzecz dywersyfikacji dostaw gazu ziemnego*, “Komentarze IeŚ”, 18.04.2023, <https://ies.lublin.pl/komentarze/czechy-i-slowacja-kontynuacja-wysilkow-na-rzecz-dywersyfikacji-dostaw-gazu-ziemnego/> (accessed: 19.08.2023).
10. Paszkowski M. (c), *Bułgaria wzmacnia pozycję na gazowej mapie Europy Środkowej*, “Komentarze IeŚ”, 7.06.2023, <https://ies.lublin.pl/komentarze/bulgaria-wzmacnia-pozycje-na-gazowej-mapie-europy-srodkowej/> (accessed: 20.08.2023).
11. Paszkowski M., *Finlandia: nowe kierunki dostaw gazu ziemnego w dobie wojny rosyjsko-ukraińskiej*, “Komentarze IeŚ”, 15.11.2022, <https://ies.lublin.pl/komentarze/finlandia-nowe-kierunki-dostaw-gazu-ziemnego-w-dobie-wojny-rosyjsko-ukraińskiej/> (accessed: 22.08.2023).
12. Paszkowski M., *Przemysł rafineryjny w państwach Europy Środkowej: uwarunkowania, wyzwania, perspektywy*, Wydawnictwo Instytutu Europy Środkowej, Lublin 2022.
13. Pokharel S., Thompson M., *Russia shuts off gas supplies to Poland and Bulgaria*, “CNN”, 27.04.2022, <https://edition.cnn.com/2022/04/26/energy/poland-russia-gas/index.html> (accessed: 27.08.2023).

14. Preussen W., *Hungary signs new gas deal with Gazprom*, “Politico”, 31.08.2022, <https://www.politico.eu/article/hungary-signs-deal-with-gazprom-over-additional-gas/> (accessed: 21.08.2023).
15. Sytas A., *Lithuania ceasing all Russian gas imports for domestic needs*, “Reuters”, 2.04.2022, <https://www.reuters.com/business/energy/lithuania-ceasing-all-russian-gas-imports-domestic-needs-2022-04-02/> (accessed: 04.09.2023).
16. Zespół ThinkTank Trójmorze, *Terminale LNG I interkonektory: klucz do bezpieczeństwa gazowego państw Europy Środkowej*, „Trimarium”, 5.09.2022, <https://trimarium.pl/projekt/terminale-lng-i-interkonektory-klucz-do-bezpieczenstwa-gazowego-panstw-europy-srodkowej/> (accessed: 28.08.2023).

The opinions expressed in the publication present only the views of the author and cannot be equated with the position of the Institute of Central Europe.

Michał Paszkowski – PhD, Instytut Europy Środkowej, e-mail: michal.paszowski@ies.lublin.pl

ORCID: 0000-0002-2751-8550