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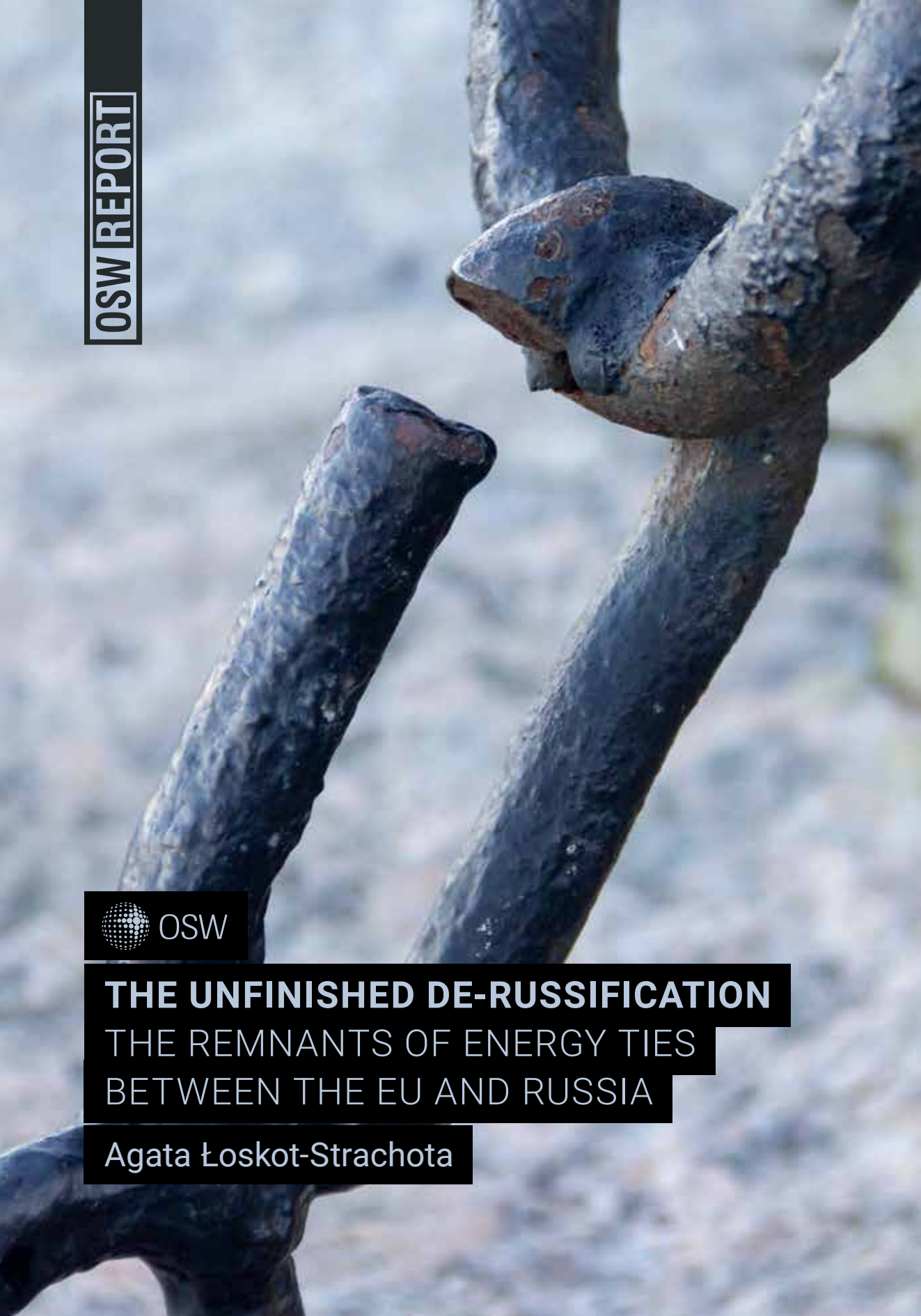

OSW

THE UNFINISHED DE-RUSSIFICATION

THE REMNANTS OF ENERGY TIES BETWEEN THE EU AND RUSSIA

Agata Łoskot-Strachota

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WARSAW
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MAIN POINTS

- Two and a half years since Russia launched its full-scale invasion of Ukraine, revolutionary changes in the structure of EU countries' dependence on Russian energy resources have become evident. Their share of total imports has drastically decreased – in the case of coal, to nil; for natural gas, by 70%; and for oil, by approximately 82%.[1] As a result, the EU has become significantly less vulnerable to hostile Russian actions in the energy sector. Furthermore, Moscow has lost a large portion of its profits from exporting resources to the EU, so it can no longer use these lost profits to finance the war.

- Efforts to diversify energy sources and carriers, to reduce demand, to stockpile oil and gas, to enhance cooperation among member states, and the occurrence of favourable circumstances (such as lower gas demand in Asia and milder winters) – all of which enabled the EU to avoid resource shortages during the past two heating seasons. The situation during the 2023/2024 winter season seems to have proven that the unprecedented crisis in the European and global energy markets has subsided, and the market situation has stabilised. The sharp drop in energy exports from Russia proved to be significantly less painful for the EU than initially anticipated. Simultaneously, it negatively impacted the situation in Russia's energy sector, including Gazprom.

- Not all sources of uncertainty and instability affecting energy markets have been eliminated. In particular, not only does Russia's ongoing military aggression in Ukraine continue, but so does the economic and energy war between Russia and the West. Despite the remarkably rapid transformation and restructuring of supply chains and energy mixes in member states, the sharp decrease in gas demand, and the EU's shift to LNG imports at the expense of pipeline gas, as well as a significant reduction in the scale and number of challenges, not all of the EU's energy ties with Russia have been severed. This is particularly evident in the case of Central European countries and the Baltic states.

- The landlocked Central European countries – albeit to a slightly lesser extent than before the war – continue to depend on Russian oil and gas, as well as (along with Finland) on nuclear fuel supplies for Russian VVER-type

[1] Before the war, the EU imported approximately 25% of its oil, 45% of its gas, and 50% of its coal from Russia.

reactors. Additionally, Rosatom is the main contractor for the nuclear power plant being built in Hungary. Furthermore, the power systems of the Baltic states are still part of the post-Soviet system controlled by Moscow.

- Some Western European countries have also maintained their ties with Russia, but these are less critical for their energy security. Spain, Belgium, and France are currently among the largest importers of Russian LNG, and the volume of these imports has been increasing since 24 February 2022. Furthermore, France's Framatome is an important partner for Rosatom.

- The continuing dependencies indicate ongoing risks and vulnerabilities of certain countries and regions, and consequently, of the EU as well. Given the ongoing war and potential hostile actions by Russia against member states, as well as Ukrainian or Western sanctions, and finally, the physical destruction of energy infrastructure in Ukraine, these dependencies could lead to energy shortages and/or interruptions in supply. One example of this is the problems Hungary and Slovakia have been facing since July 2024 due to significant cuts in Russian oil supplies through Ukrainian territory. Central European countries may face similar challenges in securing sufficient gas volumes to satisfy domestic consumption as early as this coming winter, following the expiration of the Russian-Ukrainian transit contract.

- At the same time, it is clear that most of the remaining dependencies, if not all, could clearly be eliminated. In February 2025, the Baltic states are expected to decouple from the Russian-controlled power grid and connect to the continental European network. There is also growing support in the EU for discontinuing all pipeline gas and LNG imports from Russia, as indicated by both an increasing number of statements from member state representatives and Ursula von der Leyen's keynote re-election address to the European Parliament. Additionally, there are increasing appeals for minimising dependence on Russia in the nuclear fuel cycle. However, several EU member states, especially Hungary and Slovakia, are reluctant to completely sever energy ties with Russia for political reasons.

INTRODUCTION

Energy ties between the European Union and Russia have weakened to an unprecedented extent due to Russia's ongoing military aggression in Ukraine and its economic war with the West. It has become apparent that, contrary to many expectations, the EU, in close cooperation with the US, is prepared to withdraw from importing Russian energy resources, as exemplified by the sanctions imposed on the imports of oil and petroleum products. During the gas crisis, the EU demonstrated determination to diversify supplies at an unprecedented pace, significantly compensating for the sharply declining volumes from Russia. As a result, the share of Russian oil and petroleum products in the EU's consumption decreased from approximately 38% in the pre-war year of 2021 to 5% in 2023, while the share of natural gas fell from 39% to 12%. Diversification efforts are ongoing, encompassing both energy resources and power supply networks. Following the successful emergency wartime synchronisation of Ukraine with the European power grid, the Baltic states plan to disconnect from the Russian system in February 2025.

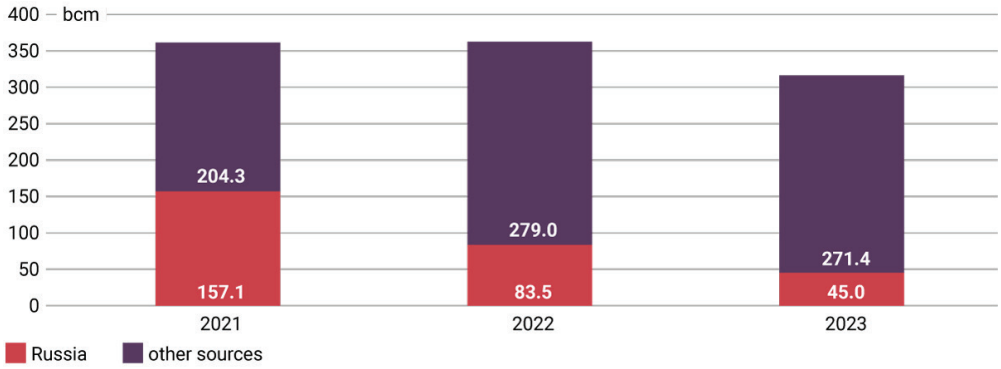
Despite these achievements and the political objective of fully ending the import of hydrocarbons from Russia, energy ties with this country have not been equally diminished across all EU member states. The ongoing war renders these dependencies a risk factor for both those individual states and the entire European Union. This is particularly evident in Central Europe, where most countries in the region still significantly depend on Russian oil and gas. Furthermore, companies from certain Western European countries profit from trading these resources. Meanwhile, Russia continues to be a significant player in the European and global nuclear fuel chain, and its companies still possess assets in the EU's refinery infrastructure.

The aim of this text is to map the state of energy dependencies on Russia within individual member states and across various energy sectors. I also aim to identify the causes of these dependencies and propose actions that should be taken to minimise or eliminate them.

I. NATURAL GAS – WITHDRAWING FROM A DIFFICULT DEPENDENCE

The ongoing dependence of certain EU countries on Russia is most evident in the natural gas sector, where diversification is usually most challenging. Aggregated data for the EU as a whole are optimistic. According to the available data, imports of Russian gas decreased by over 70% between 2021 and 2023 (from 157 to 45 bcm), and reliance on Russian gas fell threefold, from approximately 45% to less than 15% of total imported fuel.

Chart 1. European Union – gas imports from Russia and other sources



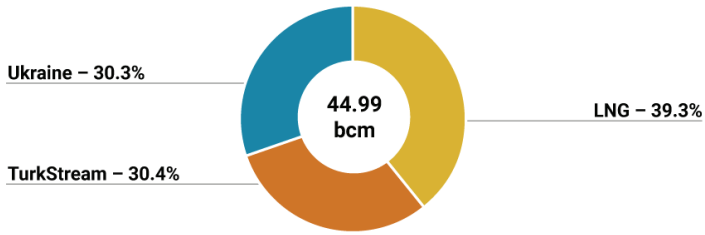
Source: Bruegel, Eurostat, and the author's own estimates.

In 2023, only three routes were utilised to supply Russian gas to the EU: primarily in the form of LNG (over 39%), via TurkStream, and through Ukraine (both exceeding 30%).[2] Supplies via Nord Stream, which was previously the largest route before the war, and the Yamal pipeline have been completely halted. Supplies via the Yamal pipeline had already been declining since the expiration of the Polish-Russian transit contract in 2020, and they ceased entirely in May 2022, when Russia imposed sanctions on the owner of the Polish section of this route.[3] Russia restricted Nord Stream traffic on several occasions in June 2022 (citing alleged technical issues due to Western sanctions) and suspended it (officially also for technical reasons) during the summer of that same year. The explosions that permanently damaged both lines of the pipeline in September 2022 significantly complicated any prospects for resuming its use.

[2] These estimates are based on G. Zachmann *et al*, 'European natural gas imports', Bruegel, 22 August 2024, bruegel.org.

[3] S. Kardaś, M. Kędzierski, 'Rosja: sankcje na wybrane unijne spółki gazowe', OSW, 13 May 2022, osw.waw.pl.

Chart 2. Routes for exporting Russian gas to the European Union in 2023



Source: Bruegel.

The complete cessation on dependence of Russian supplies by several countries that had previously relied heavily on them, such as Poland, Bulgaria, and even the largest gas consumer, Germany, had a particularly significant impact. The scale of efforts to secure alternative sources of gas demonstrated that, despite a previously strong dependence, the rapid and permanent replacement of Russian gas was achieved at an extraordinary pace, yielding positive results.

However, the situation is not uniformly positive across the European Union. Out of the 27 member states, four – Cyprus, Denmark, Ireland, and Malta – had not purchased any gas from Russia even before the war (in 2021). By 2023, eight countries had completely ceased purchasing Russian gas, and another five had significantly reduced their imports. Yet, despite the EU's politically declared goal of reducing dependence on Russian hydrocarbons and the diversification measures implemented, Slovakia, Slovenia, Austria, Hungary,[4] and Sweden were still importing the same or nearly the same volumes of gas from Russia as before the war. Belgium, France, Spain, Greece, and likely Croatia,[5] were importing even greater quantities. Many of these countries were either storing or re-exporting some of the imported LNG.

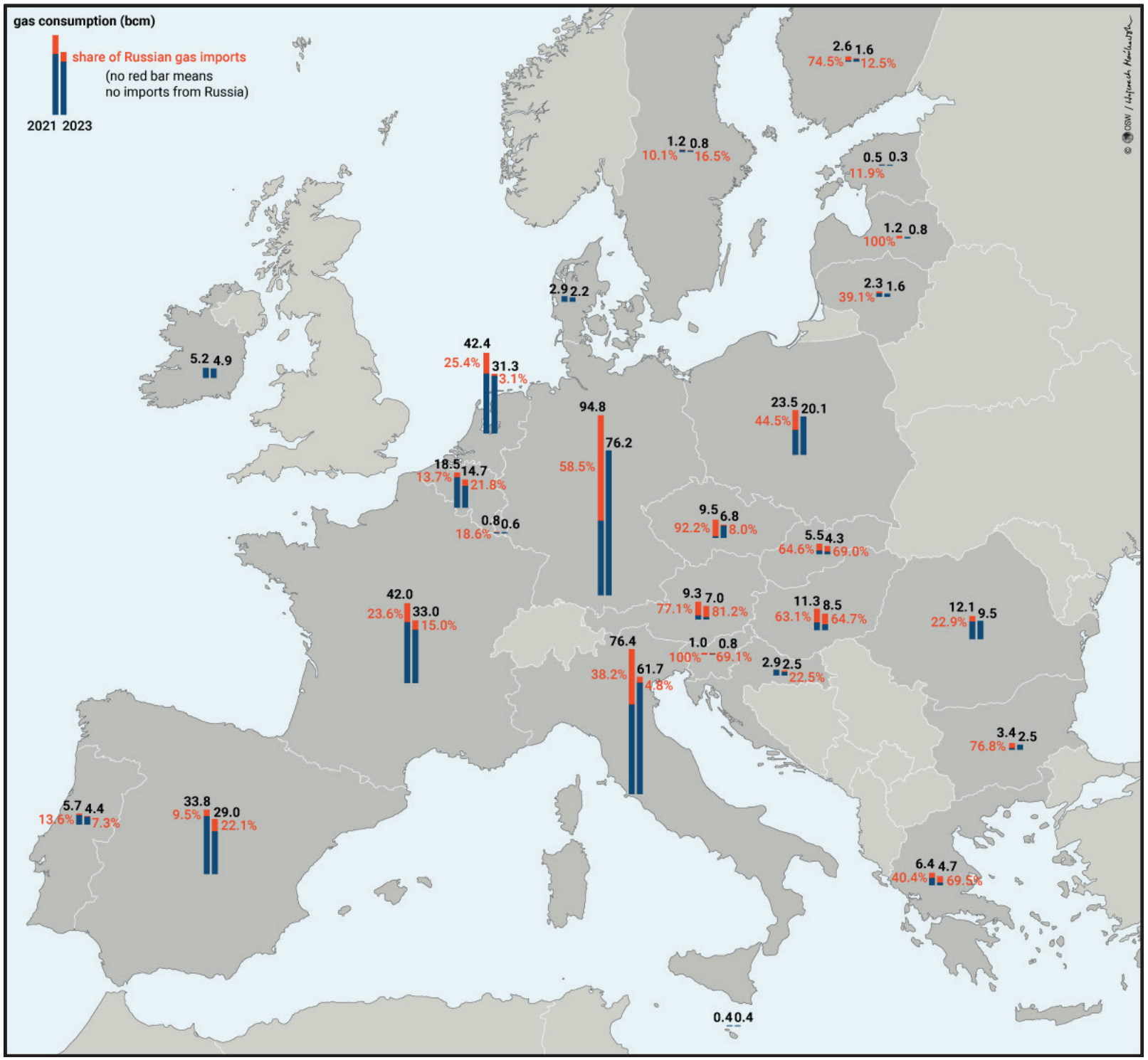
Several Central European countries continue to be particularly dependent on Russian gas. These landlocked countries face challenges in rapidly diversifying

[4] In the case of Slovakia, Slovenia, Austria, and Hungary, there is no confirmed data available to compare changes in total imports from Russia; the sources of information for this purpose are media reports and various analyses. Conversely, Slovenia imports Russian gas exclusively via Austria.

[5] Regarding Croatia, there are contradictory data. According to some sources (including Eurostat and the European Commission, see 'Croatia RePowerEU – one year later', 24 May 2023, energy.ec.europa.eu), since Croatia ceased importing Russian gas in 2021 after the LNG terminal on the island of Krk became operational, the resumption of imports in 2023 indicates an increase. Simultaneously, in 2017, Croatia signed a ten-year contract for gas imports from Russia. According to Euractiv Croatia, citing the national statistics office, Russian gas accounted for 21% of the country's demand in 2021, and its share continued to decrease in subsequent years (see A. Milovan, 'Hrvatska i sankcije Rusiji: U 2022. pao uvoz ruskog plina, ali porastao uvoz ruske nafte', Euractiv, 31 January 2023, euractiv.hr).

their sources and lack the political will to completely eliminate Russian fuel imports. In 2023, Slovakia, Slovenia (imports via Austria), and Hungary relied on Russian gas for almost 70% of their supplies, while Austria depended on it for more than 80%. Croatia had a lower level of dependence, at approximately 22%. In absolute terms, Italy imported a relatively large quantity of Russian gas in comparison to the rest of the EU; however, it accounted for only about 5% of Italy's total imports, marking a significant reduction compared to previous years.

Map 1. The EU's dependency on Russian gas in 2021 and 2023 (imports from Russia as a share of total consumption)



Source: Eurostat, ACER, Rystad, enerdata, and information from the media.

1. Central Europe and gas transit via Ukraine

Hungary[6] has maintained, and has possibly even increased,[7] its pre-war dependence on Russian gas, which has been consistently supplied primarily through TurkStream,[8] traversing the Black Sea and Turkey.[9] Dependence in all other Central European countries declined in 2022; however, there was a noticeable rebound, particularly in the second half of 2023. According to information provided by the Austrian Minister of Energy, despite a reduction in both the demand for gas and imports of Russian gas, Austria was 98% dependent on these supplies in December 2023 (compared to 80% at the beginning of 2022).[10] Despite numerous diversification efforts, Slovakia continued to rely on Russian fuel for approximately 69% of its needs in 2023. The best-positioned countries in the region were Poland, which has not imported any Russian gas since 2022, and the Czech Republic. In the Czech Republic, Russian supplies accounted for less than 8% of total imports in 2023; however, by the end of the year, there were significant increases in volumes delivered via routes through Ukraine and Slovakia.[11]

Central European countries (primarily Slovakia and Austria, but also to some extent the Czech Republic) remain dependent on gas supplies via the route passing through Ukraine, with all or the vast majority of their Russian gas supplies arriving through this transit. Consequently, the risk that Ukrainian pipeline transit may no longer be available next year, following the expiration of the Ukraine-Russia contract at the end of 2024, poses a significant challenge for these countries. Russia may exploit this dependence to influence these countries' actions, potentially by obstructing efforts to fully discontinue Russian fuel imports (for instance, as part of future sanction packages) or by encouraging them to seek ways to extend the agreement on transit via Ukraine

6 The Eurostat website does not provide final, aggregated data for the entire year of 2023, and the monthly figures lack information regarding Hungary's gas imports from Russia.

7 A. Sadecki, 'Węgry: nowa umowa z Gazpromem na dodatkowe dostawy gazu jesienią', OSW, 1 September 2022, osw.waw.pl.

8 A smaller portion of Russian gas still reaches Hungary via Ukraine. However, these volumes could potentially be redirected through TurkStream and its branch leading to Hungary. See I. Gizińska, A. Łoskot-Strachota, A. Michalski, 'Hungary is starting to import gas from Turkey', OSW, 26 April 2024, osw.waw.pl.

9 A. Sadecki, 'Węgry: nowa umowa z Gazpromem na dodatkowe dostawy gazu jesienią', *op. cit.*

10 N.J. Kurmayer, 'Austria's dependence on Russian gas rises to 98%, two years after Ukraine war', Euractiv, 12 February 2024, euractiv.com.

11 'Czechs boost imports of Russian gas at end of 2023, data shows', Natural Gas World, 8 February 2024, naturalgasworld.com.

beyond 2024.[12] The Czech Republic, the most advanced in terms of diversification, currently imports the majority of its gas – sourced from Norway and in the form of LNG through North-Western European terminals (particularly the Dutch Eemshaven) – via routes that traverse German territory. Slovakia and Austria also utilise the German transmission network to import LNG or Norwegian gas. Austria may additionally source some fuel from or through Italy, while Slovakia partly relies on the Austrian and Czech networks. To partially offset the extraordinary costs of gas purchases for stockpiling during the crisis year of 2022, Germany introduced additional transmission fees that year, which were subsequently increased several times; Italy later implemented similar measures.[13] Consequently, Slovakia, the Czech Republic, and Austria have faced challenges associated with the decreasing profitability of diversification. Additionally, Central European nations are also counting on importing Azerbaijani gas via Turkey, and subsequently through existing and expanded infrastructure in the region (Solidarity Ring[14]) or via Ukraine,[15] although the future of these initiatives remains uncertain.

Officially, Ukraine does not intend to extend the transit contract with the aggressor or to sign a new one. However, this decision would deprive Ukraine of revenues estimated at approximately $1.5 billion in 2023,[16] affect the operation of its gas pipeline system, and pose a risk to the security of its infrastructure. Furthermore, the ability to utilise Ukrainian pipelines to flexibly increase exports to the EU, if necessary, has been an important option also for Russia and Gazprom, particularly since access to Nord Stream and the Yamal pipeline was lost. This is likely one of the reasons why Russia has spared Ukraine's gas infrastructure, despite frequent missile attacks on its electricity network. Strikes on gas storage facilities in the western part of the country in 2024,[17] have demonstrated that Russia could disrupt the functioning of both regional and EU markets, whose participants had previously utilised Ukraine's storage

12 For example, by permitting interested EU companies to purchase gas at the Russian-Ukrainian border and to reserve Ukrainian pipeline capacities through auctions that comply with EU law or by lobbying for the inclusion of an intermediary from a third country (e.g. Azerbaijan) that would take responsibility for transit through the territory of Ukraine.

13 M. Kędzierski, A. Łoskot-Strachota, 'The German gas storage levy is disrupting the Central European gas market', OSW, 8 March 2024, osw.waw.pl.

14 'Solidarity Ring: a step towards increasing Azerbaijani gas supplies to Central Europe', OSW, 11 May 2023, osw.waw.pl.

15 G. Gavin, F. di Sario, V. Jack, 'EU wants Azerbaijan to fuel Russian gas pipeline in Ukraine', Politico, 13 June 2024, politico.eu.

16 A. Sullivan, 'What Ukraine's Russia incursion means for EU gas supply', DW, 19 August 2024, dw.com.

17 See P. Polityuk, 'Russia attacks Ukrainian gas storage site; Ukraine ramps up power imports', Reuters, 25 March 2024, reuters.com.

capacity to stockpile reserves for winter and to balance the market.[18] Ukraine's storage facilities have a capacity of almost 31 bcm, with over 25 bcm located at five sites near the EU border.[19] At the beginning of 2021, these were filled with over 23 bcm of gas, of which 7.7 bcm belonged to foreign entities.[20]

2. Increasing supplies – TurkStream and LNG

Since the outbreak of the war, and even as it escalated, exports have continued, or even increased, via still-operating routes that have not yet fallen out of favour with the Kremlin, as was the case with the Yamal pipeline and Ukrainian pipelines. Primarily, this pertains to deliveries via the TurkStream pipeline, which was constructed and launched in 2021, to countries that remain willing to cooperate with Russia (such as Hungary and Serbia). The continuation of supplies and the increase in volumes are also a result of the continued Russian-Turkish energy cooperation and the political interests of both Moscow and Ankara. Another country, in addition to Hungary, that has imported significant volumes of gas from Russia is Greece, which receives supplies through the European branch of TurkStream. On one hand, this was attributable to the absence of clear risks to the stability of supplies from Russia. On the other hand, Greece has emerged as a major partner for other countries in the region in recent years, due to its LNG terminals and interconnector with Turkey, as well as with the Southern Gas Corridor running through Turkish territory, which serves as the export route for natural gas from Azerbaijan and potentially other Caspian states. Cooperation with Greece enables Southeast European countries, including Bulgaria – which no longer receives Russian gas – and even Ukraine and Moldova, to diversify their sources and enhance the security of supplies. It is possible that the Russian gas consumed by Greek households for domestic needs facilitated greater supplies of non-Russian gas to neighbouring countries during the crisis.

After more than two years of the Russian invasion, maritime deliveries of liquefied natural gas, particularly to terminals in Southern and North-Western Europe, play a crucial role. LNG imports from Russia to the EU rose by over 35% in 2022 compared to 2021. In 2023, their volumes decreased to approximately

[18] Regarding possible scenarios for the use of Ukrainian infrastructure after the expiration of the contract, see: A. Łoskot-Strachota, S. Matuszak, F. Rudnik, 'Game over? The future of Russian gas transit through Ukraine', *OSW Commentary*, no. 623, 6 September 2024, osw.waw.pl.

[19] A. Łoskot-Strachota, S. Matuszak, 'The growing role of Ukraine on the Central European gas market', OSW, 21 September 2020, osw.waw.pl.

[20] 'Natural gas storage in Ukraine', Naftogaz, 12 January 2021, utg.ua.

18 bcm, but they remained 26% higher than in the year preceding the war.[21] According to data from the European Union Agency for the Cooperation of Energy Regulators (ACER), in 2023, LNG from Russia was delivered to nine EU member states, with the largest recipients – Belgium, Spain, and France – accounting for 85% of EU imports of Russian LNG.[22] In the first two countries mentioned, Russian gas constituted nearly 20% of imported LNG in 2023.

Although a significant percentage of Russian LNG arriving in the EU (up to 35% in 2023) was transshipped at EU terminals and sent to third countries,[23] the remaining volumes were sold in EU market, including under long-term contracts signed prior to the war.[24] Lithuania was the only country to ban imports of liquefied natural gas from Russia in 2022, and Finland followed suit in 2024 due to newly adopted sanctions.[25] The fourteenth package of sanctions, adopted in June 2024, prohibited the transshipment and re-export of Russian LNG at EU terminals. This practice will be curtailed when these regulations come into force (by March 2025);[26] however, it remains unclear how it will affect the volumes of liquefied gas imports from Russia to the EU.

3. The absence of an EU gas policy

The EU's dependence on Russian gas has so far diminished primarily due to actions taken by Russia itself. As early as 2021, Gazprom ceased selling gas through exchanges, and from the end of April 2022, it began limiting volumes under existing contracts – initially only for companies that refused to comply with Russia's unilateral introduction of the rouble-for-gas payment scheme, and subsequently to others as well. In 2022, gas supplies through the Yamal–Europe and Nord Stream 1 pipelines were halted, and gas volumes transmitted through Ukrainian infrastructure were significantly below its capacity and

21 See F. Rudnik, 'The effect of the sanctions: the Russian LNG sector's problems', *OSW Commentary*, no. 578, 7 March 2024, osw.waw.pl; *Analysis of the European LNG market developments. 2024 Market Monitoring Report*, European Union Agency for the Cooperation of Energy Regulators, 19 April 2024, acer.europa.eu.

22 See *Analysis of the European LNG market developments...*, *op. cit.*

23 *Ibid.*

24 For more details see F. Rudnik, 'The effect of the sanctions: the Russian LNG sector's problems', *op. cit.*

25 'EU expands sanctions against Russia', Gasum, 25 June 2024, gasum.com.

26 Restrictions covering LNG transshipment and re-export are set to be implemented within nine months, specifically by 26 March 2025, concerning contracts signed before the announcement of the sanctions. See F. Rudnik, 'The EU's new sanctions against Russia: tighter restrictions, a ban on re-exporting LNG', OSW, 25 June 2024, osw.waw.pl.

the quantities stipulated under the transit contract.[27] To date, the EU has not established a legal framework (such as an embargo similar to those on Russian coal, oil, or petroleum products) to minimise the share of Russian gas in its imports and consumption. The provisions of the fourteenth package of sanctions complicate the ability of Russian firms to use EU terminals; however, they do not target the import of LNG from Russia and do not cover pipeline deliveries at all. The goal, announced by the European Commission in 2022, to completely phase out Russian gas and hydrocarbons by 2027 is non-binding and was not included in the final version of the REPowerEU document. It is also unclear whether the declarations made by Ursula von der Leyen, who was re-elected as President of the European Commission, regarding the end of the era of dependence on Russian hydrocarbons will take a binding form and, if so, in what manner.[28]

The situation regarding EU-Russian contractual obligations is becoming increasingly unclear and complex. Despite various legal measures taken, many contracts for gas supplies from Russia to individual EU recipients remain in force. Only a few have expired, including those with Poland and Bulgaria. The status of the remaining contracts – which Russia has violated by failing to meet delivery volumes or unilaterally altering payment terms – remains uncertain. Several transit contracts between Gazprom and European operators (including those with Slovak and Austrian companies) remain in effect.

Many EU customers have initiated arbitration proceedings against Gazprom for failing to fulfil or properly execute its supply contracts. However, the outcomes of most lawsuits remain uncertain, and Gazprom has responded with counterclaims.[29] Furthermore, the pending lawsuits pose the risk that European companies might seize Gazprom's assets and/or complicate payments for gas that Russia continues to export to other EU customers.[30] A significant precedent may have been established by Uniper's arbitration victory in June 2024, allowing the termination of contracts for over 25 bcm of gas annually and awarding Uniper over €13 billion in compensation for undelivered fuel since 2022. However, it remains uncertain whether this ruling will be enforced.[31]

27 For more details see A. Łoskot-Strachota, 'The EU gas market: revolutionary changes and the spectre of another winter', *OSW Commentary*, no. 515, 25 May 2023, osw.waw.pl.

28 'Statement at the European Parliament Plenary by President Ursula von der Leyen, candidate for a second mandate 2024–2029', European Commission, 18 July 2024, ec.europa.eu.

29 'Gazprom's legal battles with European companies', Reuters, 12 June 2024, reuters.com.

30 See, for example, 'OMV statement on gas supplies under Gazprom Export contract for Austrian Market Area East', OMV, 21 May 2024, omv.com.

31 C. Steitz, 'Uniper wins $14 billion arbitration ruling against Gazprom', Reuters, 12 June 2024, reuters.com.

This precedent could pave the way for similar rulings in other cases brought by EU companies against Gazprom, including Eni, Engie, RWE, and CEZ.[32] Simultaneously, there are pending lawsuits initiated by operators and/or owners of transmission infrastructure in the EU, such as Net4Gas and Europol Gaz.[33]

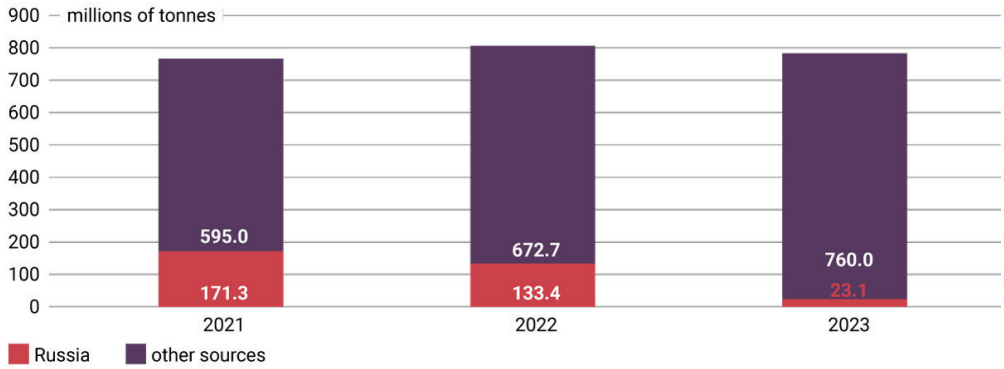
Currently, Russia may continue to restrict gas supplies to the EU, particularly under conditions of high demand or other challenges. However, the opposite scenario – an increase in supplies to selected European entities or countries – cannot be ruled out. Such a move would sustain the EU market's dependency on Russian gas and enhance Moscow's influence, while also boosting Russian gas exports and the Kremlin's revenues. These actions could further undermine the EU's ability to adopt a unified policy towards Russia, including the implementation of additional sanctions. Furthermore, they may also trigger a response from third countries, such as additional US restrictions or potential secondary sanctions, as well as new EU sanctions that could complicate the continuation of gas imports from Russia.[34]

[32] 'Gazprom's legal battles with European companies', *op. cit.*
[33] *Ibid.*
[34] This is what Austria's OMV is most likely grappling with – 'OMV statement on gas supplies…', *op. cit.*

II. RUSSIAN OIL – A SHARP REDUCTION IN DEPENDENCY

The EU implemented sanctions on Russian oil imports by sea in December 2022 and on petroleum products in February 2023. Furthermore, in cooperation with non-EU Western countries, a price cap was established on oil and fuels from Russia. According to Eurostat data, sales of oil and petroleum products from Russia to the EU decreased by approximately 86% between 2021 and 2023, falling from around 171 million to approximately 23 million tonnes.[35]

Chart 3. European Union – oil and petroleum product imports from Russia and other sources



Source: Eurostat, the author's own estimates.

The countries that receive supplies via the Druzhba pipeline, due to their geographical location and inability to rapidly diversify their energy sources, were exempted from the restrictions. Additionally, temporary derogations from the sanctions were granted to Bulgaria (for crude oil) and Croatia (for vacuum gas oil).[36] The subsequent sanction packages imposed in June 2023 targeted imports via the northern branch of the Druzhba pipeline, which had previously supplied oil to Germany and Poland but was no longer in use due to successful diversification of sources, expired contracts, and partial supply cuts by Russia. The restrictions still do not apply to the southern branch of the pipeline, which runs to Slovakia, the Czech Republic, and Hungary,[37] as well as to certain petroleum products, including LPG.

[35] *Imports of oil and petroleum products by partner country – monthly data*, Eurostat, ec.europa.eu.
[36] See *EU sanctions against Russia explained*, European Council, consilium.europa.eu.
[37] See I. Wiśniewska, 'Tightening restrictions: the EU's eleventh package of sanctions against Russia', OSW, 26 June 2023, osw.waw.pl.

In Central Europe, the situation in the oil sector mirrors that of natural gas. The region's geographical location – characterised by a lack of direct access to the sea – and its existing infrastructural and contractual ties have complicated efforts to swiftly reduce reliance on imports from Russia. As a result, the region has remained dependent on Russian supplies, which exposes both Central Europe and the entire EU to certain risks. Political will is a crucial factor in the diversification of supplies and in severing ties with Moscow. The various approaches taken by Central European countries to manage their remaining dependence illustrate this perfectly. The Czech Republic is actively working to phase out Russian oil and aims to eliminate its reliance on it by 2025, when the expansion of the TAL and IKL pipelines is expected to be completed.[38] In contrast, Slovakia has encountered greater difficulties in diversifying its sources, potentially due to ownership ties in the oil sector (Slovakia's sole refinery, Slovnaft, is owned by the Hungarian company MOL). At the end of 2023, Slovakia requested an extension of its exemption from sectoral sanctions until the end of 2024 to ensure uninterrupted supplies for its refinery.[39] It is likely that similar requests will be made in the near future. Meanwhile, Hungary not only has no plans to reduce dependence on Russian oil but also intends to construct an interconnector to Serbia to facilitate supplies to that country.[40] However, both Hungary and Slovakia have access to an alternative route via the Adria pipeline and have had sufficient time to adapt their refineries to process non-Russian, typically lighter, crude oil.

The July news that Lukoil suspended oil shipments to Hungary and Slovakia,[41] highlighted the risks inherent in continued dependence. Consequently, contracted oil supplies to Central European refineries have been reduced since July 2024 due to Ukraine extending the sanctions to Lukoil and the way Russian companies adapted to them, as well as possibly due to internal disputes among Russian oil companies. MOL, the owner of both refineries, has been bridging the gaps with stockpiled oil and deliveries from other Russian suppliers; however, it is concerned about the long-term sustainability and costs of this solution.[42]

38 K. Dębiec, 'The TAL is expanding: the Czech Republic is gaining independence from Russian oil supplies', OSW, 7 December 2022, osw.waw.pl.

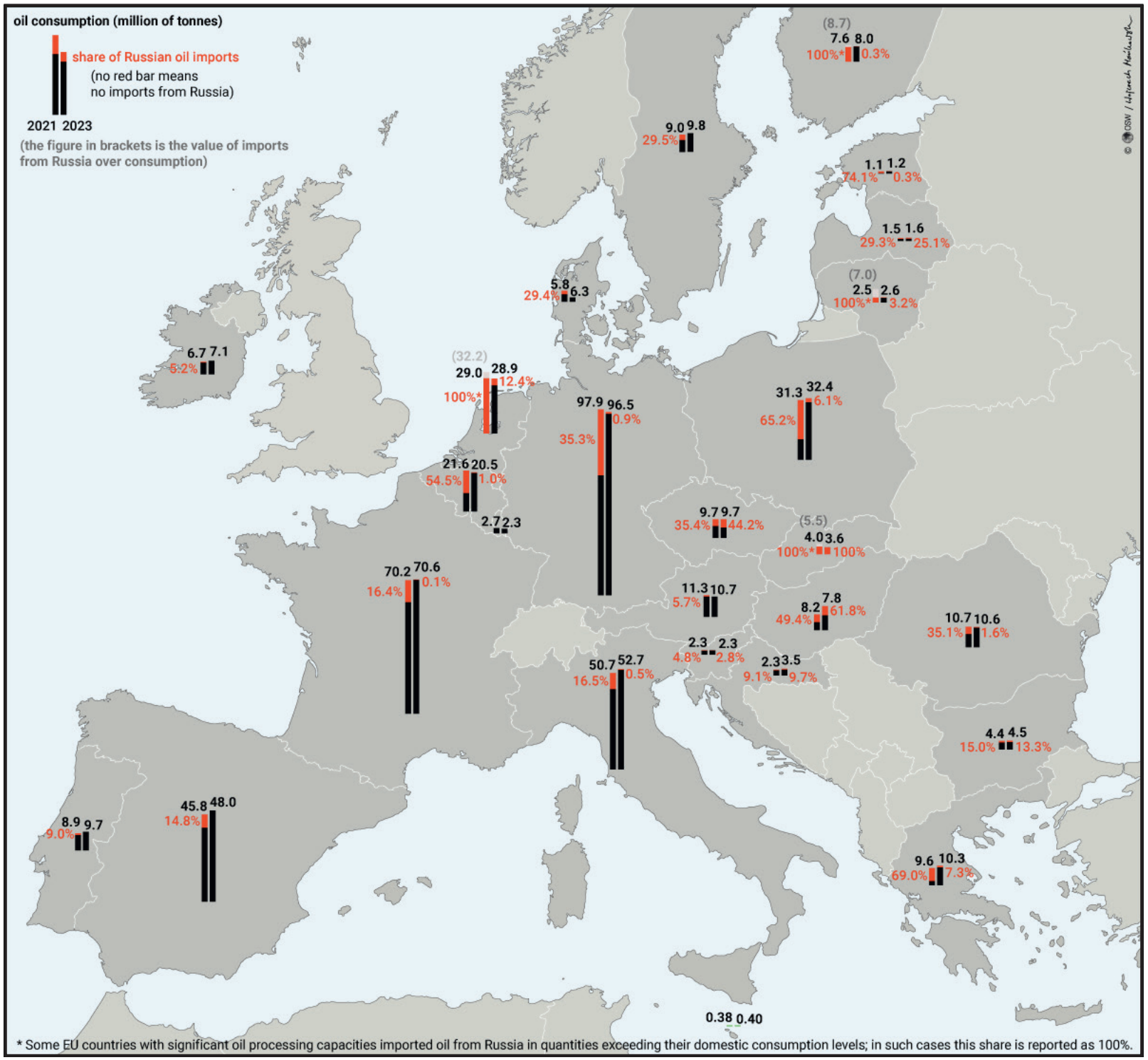
39 V. Jack, 'Slovakia asks EU for extra year to kick Russian oil addiction', Politico, 20 November 2023, politico.eu.

40 I. Gizińska, A. Sadecki, 'Another Hungarian veto aimed at Ukraine', OSW, 23 May 2023, osw.waw.pl.

41 J. Hovet, A. Komuves, 'Slovakia, Hungary say Ukraine has halted Lukoil's Russian oil transit', Reuters, 18 July 2024, reuters.com.

42 See 'Hungarian-Slovak Dispute with Ukraine: Suspension of Lukoil Oil Supplies', OSW, 26 July 2024, osw.waw.pl; B. Finczicki, 'MOL works hard to secure crude after Ukraine ban', Argus Eurasia Energy, 15 August 2024.

Map 2. The EU's dependency of Russian oil and petroleum products in 2021 and 2023 (imports from RF as a share of total consumption)



Source: Eurostat.

As with natural gas, Poland and Germany, which until recently relied on pipeline supplies, have performed better in reducing their dependency on Russian oil. The factors that significantly contributed to this include access to the sea and the oil terminal in Gdańsk, which imports crude oil for the Polish and German markets, primarily for the Leuna Refinery, and, to some extent, for the Schwedt Refinery. However, as the capacities of the Polish and German terminals (in Rostock) are insufficient and there are no plans to rapidly expand capacity on the German coast,[43] in the near future, additional oil is supplied to Germany from Kazakhstan via the Druzhba pipeline.

However, this approach raises several concerns. Firstly, it implies dependence on oil transit through Russian territory and pipelines, exposing Germany to potential risks, as access can be severed. Secondly, given that relatively small quantities of crude are imported in this manner (Russian media report approximately 1 million tonnes in 2023)[44], and the considerable distance from Kazakhstan, at least part of the oil reaching Germany is likely sourced from Russia (for example through swap transactions). Consequently, despite sanctions and the formal cessation of imports from Russia, Germany remains somewhat reliant on these types of transactions involving Russia, its infrastructure, and likely its crude oil, at least until projects enabling increased supplies from Baltic ports are completed.

Since the outbreak of the war, Poland has been able to import larger quantities of non-Russian crude oil through Gdańsk owing to Orlen's contract with Saudi Aramco. Imports from Russia, however, ceased completely only in 2023, following the expiration of the contract with Rosneft and the suspension of remaining supplies by Moscow. Currently, Poland still purchases Russian LPG and remains its main recipient in the EU. In 2023, the volume of Russian LPG imports to Poland rose compared to the previous year.[45] In recent years, Poland has been re-exporting some of the LPG to Ukraine, which is one of its largest consumers in Europe. EU sanctions targeted the import of most, but not all, Russian petroleum products, including petrol, diesel, aviation fuel, kerosene,

[43] The aim is to increase its capacity from 7 to 9 million tonnes per year. This could be achieved within a timeframe of approximately two years, provided that the European Commission approves German state aid for this investment or that Berlin finds an alternative financing model.

[44] According to the same source, approximately 1.2 million tonnes of Kazakh oil are scheduled to be supplied to Germany in 2024 and 2025.

[45] R. Zasuń, L. Kadej, 'To ostatni rok z tanim rosyjskim LPG. Czy kierowcy powinni się bać?', WysokieNapiecie.pl, 2 May 2024, wysokienapiecie.pl.

and heating oil. The sanctions were extended to LPG only at the end of 2023, and this restriction is scheduled to take effect from December 2024.[46]

1. Russia in the global market – circumventing and adapting to the sanctions regime

Moscow's revenues declined due to restrictions on Russian oil and the implementation of a price cap of $60 per barrel in December 2022,[47] however, it is important to note that 2022 was not fully representative due to price spikes and volatility following the outbreak of the war. Simultaneously, Russia successfully redirected nearly all the oil it had previously sold to Western countries to other markets, with 80% directed to India and China.[48] Sustaining a relatively stable level of Russian exports largely aligned with Western goals, particularly those of the US, which sought to limit the Kremlin's revenues without destabilising the international oil market or causing significant price increases. Russia accounted for approximately 12.5% of global oil production in 2023. Consequently, considering its impact on the global balance and the extent of previous ties between Russia and the EU, Western countries found it challenging to agree on imposing stricter measures (such as a lower price cap and/or secondary sanctions targeting third countries). The embargo and the price cap were implemented relatively late, and some entities were hesitant to terminate cooperation despite the sanctions. Furthermore, at least some Western countries feared a possible destabilisation of the Russian economy and retaliatory actions from Moscow, if they pursued bolder measures. Moscow could, for instance, either independently or in collaboration with other OPEC members, increase prices and/or reduce the availability of oil in the global market. All these factors influenced the pace and scale of the restrictions, enabling Russia to prepare for these measures and subsequently circumvent them.

In 2023, Russia and entities from third countries not only circumvented the sanctions but also successfully adapted to the sanctions regime. This limited the effectiveness of the restrictions and enabled Moscow to continue exporting and generating revenue.[49] The EU also faced another challenge, as several companies from certain member states (including Greece, Cyprus, and

[46] I. Wiśniewska, F. Rudnik, 'Ban on diamond imports to the EU: the twelfth package of sanctions against Russia', OSW, 19 December 2023, osw.waw.pl.

[47] *Tracking the impacts of G7 & EU's sanctions on Russian oil*, Centre for Research on Energy and Clean Air (CREA), energyandcleanair.org.

[48] F. Rudnik, 'Partial success: Russia's oil sector adapts to sanctions', *OSW Commentary*, no. 528, 9 August 2023, osw.waw.pl.

[49] See *ibid*.

Malta, which sold or leased tankers)[50] contributed Russia in preparing for the sanctions and even continued cooperation with Russian firms despite new regulations.

Furthermore, the EU remains indirectly dependent on Russian oil. This dependency arises from its continued reliance on petroleum products derived from Russian crude oil, which are imported and processed by third countries, primarily India and Turkey. Notably, this practice is not subject to sanctions. According to estimates from CREA,[51] countries that implemented the price cap (the G7 and Australia, alongside the EU) imported 44% more petroleum products derived from Russian oil in 2023 compared to the previous year (in 2022, the year-on-year increase was as high as 66%). According to CREA, among EU countries, the highest value of such imports in 2023 was recorded in the Netherlands, France, Italy, Romania, and Spain. Global Witness found that, in 2023, EU member states collectively purchased 130 billion barrels of petroleum products derived from Russian oil (primarily diesel fuel).[52] These increases in Russian imports happened at a time when, according to Eurostat data for 2023, EU imports of petroleum products decreased by nearly 3% year-on-year (but remained approximately 5% higher than in the pre-war year of 2021).[53] Additionally, according to the IEA, oil processing in European refineries remained nearly at the same level as the previous year, standing at 11.4 million barrels per day.[54]

2. Russian refineries in the EU

In the EU, some refineries are still either formally or effectively owned by Russian entities (see map 3). Bulgaria is exempt from sanctions, and its largest refinery, located in the coastal city of Burgas, is owned by Lukoil. Consequently, according to CREA, Bulgaria was the fourth-largest global importer of Russian crude oil by sea in 2023, following China, India, and Turkey.[55] Under the

50 G. Gavin, 'Fight against 'shadow fleet' shipping Russian oil takes EU into uncharted waters', Politico, 22 May 2023, politico.eu.

51 'Refining loophole widens: 44% increase in sanctioning countries imports of oil products from Russian crude in 2023', Centre for Research on Energy and Clean Air (CREA), February 2024, energyandcleanair.org.

52 'EU purchases of laundered Russian oil worth an estimated €1.1 billion to the Kremlin in 2023', Global Witness, 23 February 2024, globalwitness.org.

53 *EU imports of petroleum oils, 2019–2023*, Eurostat, March 2024, ec.europa.eu.

54 *Oil Market Report*, International Energy Agency (IEA), 18 January 2024, iea.blob.core.windows.net.

55 I. Levi, 'Russian oil on EU soil: Bulgarian refinery skirts sanctions and buys Russian crude worth an estimated EUR 1.1 billion in tax to the Kremlin', Centre for Research on Energy and Clean Air (CREA), 9 November 2023, energyandcleanair.org.

derogation rules, fuel produced at this facility can only be exported to Ukraine. Furthermore, Lukoil, including through its subsidiary Litasco, also controls other assets in the Bulgarian fuel and oil market, where it continues to be the dominant player. In 2024, the Bulgarian government implemented measures to curb Russian influence in the energy sector.[56] Beginning in January, all foreign sales of petroleum products derived from Russian oil were banned, and in March 2024, Russian oil imports were scheduled to cease completely, to be replaced by oil from Kazakhstan, Iraq, and Tunisia.[57] There were also rumours that Lukoil might sell the Burgas refinery.[58] Bulgaria, likely encouraged by the US, is seeking a strategic buyer for Neftochim Burgas, with reports suggesting that Azerbaijan's SOCAR is interested.[59] Lukoil also holds stakes in the Petrotel refinery in Romania and the Zeeland refinery in the Netherlands, although both facilities process non-Russian oil.

The Russian state-controlled oil company Rosneft, through its subsidiaries Rosneft Deutschland and RN Refining & Marketing, continues to co-own three German refineries: PCK in Schwedt (holding a 54.17% stake), MiRO in Karlsruhe (24%), and Bayernoil in Vohburg and Neustadt (28.57%). All these refineries have transitioned to non-Russian crude oil. Rosneft's operations in Germany have been under the control of the German government since September 2022, when the company's assets were placed under the trusteeship of the Federal Network Agency (BNetzA), with this arrangement extended twice (in March 2024 until September 2024, and now until March 2025). For many months, Germany has been seeking a way to sell the Russian stakes to prevent future legal claims from Rosneft, ideally with the company's cooperation,[60] but thus far, these efforts have been ineffective.

[56] Ł. Kobeszko, F. Rudnik, 'Bułgaria: ograniczanie rosyjskich wpływów w sektorze naftowym', OSW, 28 July 2023, osw.waw.pl.

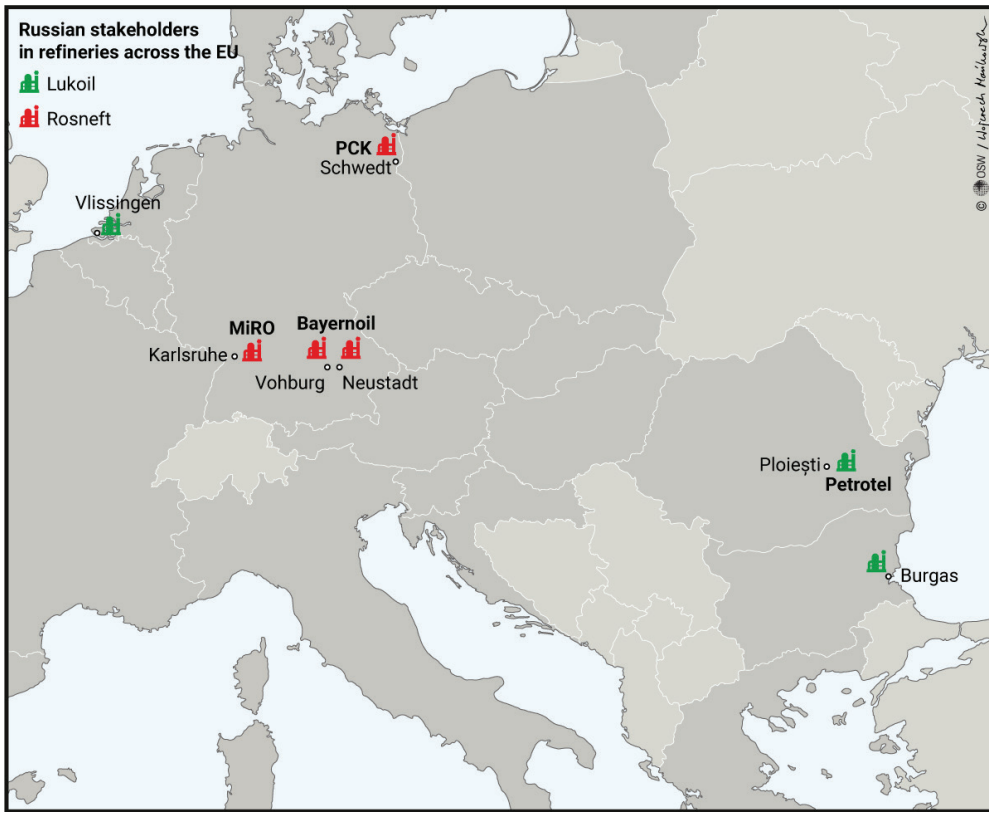
[57] 'Bulgaria replacing Russian crude with oil from Kazakhstan, Iraq, Tunisia', Reuters, 12 January 2024, reuters.com.

[58] K. Nikolov, 'Lukoil considers sale of Bulgarian refinery', Euractiv, 6 December 2023, euractiv.com.

[59] *Idem*, 'Bulgaria is looking for a strategic buyer for Lukoil Neftochim in the US', Euractiv, 15 February 2024, euractiv.com.

[60] M. Kędzierski, 'Another extension of the trusteeship over Rosneft's German assets', OSW, 11 March 2024, osw.waw.pl.

Map 3. Russian refineries in the European Union



Source: company websites, information from the media.

III. RUSSIA'S ROLE IN THE EU'S ELECTRICITY AND NUCLEAR ENERGY SECTORS

The European Union's electricity sector as a whole has never been heavily reliant on Russia. However, the situation is different in the Baltic states and in the nuclear energy sector. Regarding electricity connections, dependence has diminished and is likely to be completely eliminated in the early months of 2025. However, the situation is much worse in the nuclear energy sector, despite ongoing efforts to address this issue.

1. The electricity sector – disconnections expected in the near future

Efforts to disconnect from Russia in the electricity sector carry inherent risks, as illustrated by Ukraine's experiences in 2022. The full-scale war erupted after Ukraine disconnected from the Russian-controlled system while testing the sector's island mode operation. This resulted in an inability to reconnect and prompted an accelerated emergency synchronisation with the continental European system, which was a significant achievement in itself. Synchronous operation has facilitated, among other benefits, EU member states' support for Kyiv during the invasion amid repeated attacks on the Ukrainian power grid and extensive infrastructure destruction.

In the EU, Finland and the Baltic states have still maintained electricity ties with Russia. Consequently, Russian power supplies to Finland, which had accounted for approximately 14% of its national needs, ceased in May 2022 due to Moscow's hostile actions. In contrast, Lithuania, Latvia, and Estonia have not imported electricity from Russia for some time and have developed connections with EU countries – such as the Lithuania-Sweden, Estonia-Finland, and Lithuania-Poland connections (the latter is set to become synchronous in the future). However, they remain part of the Russian-controlled post-Soviet IPS/UPS electricity system and are signatories to the international BRELL agreement, which represents a risk factor, especially given the ongoing war. Moscow continues to ensure the frequency stability of their grids and could theoretically disrupt their functioning.

According to the timetable established in December 2023 and confirmed by political declarations, including those by the energy ministers of Lithuania,

Latvia, Estonia, and Poland,[61] synchronisation is to be completed by 8 February 2025. On 16 July 2024, the grid operators of the Baltic states officially informed their Russian and Belarusian counterparts of their intention not to renew the BRELL agreement.[62] Technical and formal preparations for the switch have been ongoing for many years, and quality checks have intensified since February 2022. Additionally, due to existing risks, it was decided not to conduct an earlier island-mode test, but to implement it concurrently with desynchronisation.

This process, along with the connection to the EU system, is technically complex and therefore requires meticulous planning, especially, given the war and potential hostile actions from Russia. It also symbolises the severance of the last significant ties between Lithuania, Latvia, and Estonia with Moscow, which may carry significant political risks. Furthermore, pre-emptive actions by Russia, including intensified disinformation (such as claims regarding anticipated electricity price increases due to a disconnection or energy sufficiency issues in Kaliningrad)[63], unexpected and premature disconnections, or damage to key energy infrastructure, cannot be ruled out.[64] The scale and nature of potential harmful actions will depend on the Kremlin's intentions and the degree of preparedness of the Baltic states and the EU as a whole.

2. Russian nuclear fuel and reactors in the EU

Russian companies continue to be involved in the strategic nuclear energy sector in several EU countries. Neither Rosatom nor Russian nuclear fuel supplies or related services have been subject to sanctions, due to Russia's significance in the entire nuclear fuel cycle.

Currently, nineteen nuclear reactors built with Russian VVER technology are operational in the EU, primarily in Central and Eastern Europe: two in Finland, six in the Czech Republic, five in Slovakia (with one additional reactor expected to be operational by 2025), two in Bulgaria, and four in Hungary.[65]

61 Political Declaration on implementing the synchronisation of the Baltic States' electricity networks with the Continental European Network via Poland, 19 December 2023, energy.ec.europa.eu.

62 'Baltic TSOs end BRELL electricity agreement with Russia, Belarus', ERR, 16 July 2024, news.err.ee.

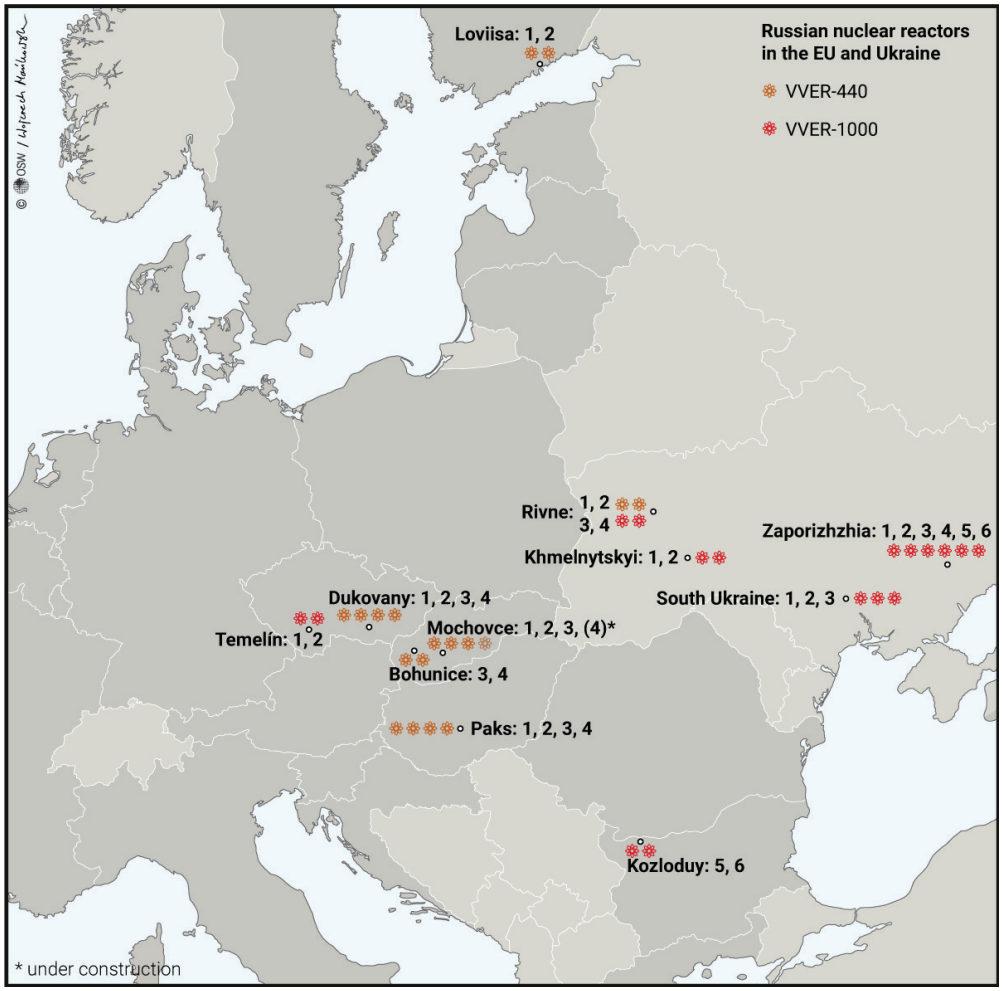
63 The Russian exclave has been self-sufficient in electricity supplies since 2011, following the commissioning of two gas units, as confirmed by tests of island mode operation.

64 Since the end of January 2024, EstLink 2 – one of the two submarine cables connecting Estonia to Finland – has been out of service due to unexplained damage. See 'Estlink 2 will not be repaired until August due to complexity of task', ERR, 19 March 2024, news.err.ee.

65 *VVER-440 and VVER-1000 nuclear power plants in Europe*, APIS, apis-project.eu.

TVEL, a subsidiary of Rosatom, previously supplied fuel for all of these reactors and continues to do so for the majority. Rosatom is also the principal contractor for the Paks II Nuclear Power Plant in Hungary.[66] However, following the outbreak of the war, Finland and the Fennovoima consortium discontinued their cooperation with Rosatom.[67]

Map 4. Russia in the EU's nuclear energy sector



Source: APIS project, company websites, information from the media.

According to data from the Euratom Supply Agency, 23.5% of the uranium entering the EU market in 2023 originated from Russia. Furthermore, Russia

66 I. Gizińska, A. Sadecki, 'Russia's nuclear project in Hungary: France's growing role', *OSW Commentary*, no. 520, 4 July 2023, osw.waw.pl.

67 A. Kauranen, 'Finnish group ditches Russian-built nuclear plant plan', Reuters, 2 May 2022, reuters.com.

delivered nearly 90% more uranium than in the previous year. The primary reason for this increase was that EU buyers were stockpiling in anticipation of potential disruptions in future supplies due to hostile actions from Russia or potential EU/Western sanctions. Simultaneously, they sought methods to gradually reduce their dependence on imports from Russia. Since 2022, in contrast to previous years, the EU has been importing more uranium than it consumes. Kazakhstan, the world's largest uranium producer and the EU's third-largest supplier in 2023 (following Canada and Russia), accounted for 21% of total imports.[68] However, Kazakhstan remains under significant Russian political and economic influence. Furthermore, Russia remains a key supplier of uranium conversion (over 26.5% in 2023) and uranium enrichment services (nearly 38%)[69] to the EU, with its share in both processes increasing year on year.

Close commercial ties between the French nuclear sector and Rosatom continue to exist. The Russian corporation collaborates with France's state-owned group EDF, particularly under a partnership established in 2021 that focuses on joint research and development, as well as cooperation in green hydrogen production. Rosatom also collaborates with Framatome, a company predominantly owned by EDF, which supplies technologies, including control and monitoring systems for Rosatom's projects. Framatome is involved in the construction of the Paks II Nuclear Power Plant in Hungary and collaborates with Rosatom in the production of fuel rods in Germany.[70] Discussions aimed at reducing Europe's dependence on Russia in the nuclear energy sector are ongoing. Subsequently, in May 2024, the United States imposed an embargo on the import of Russian low-enriched uranium (LEU).[71]

Although the EU has increased its imports of Russian nuclear fuel since February 2022, it has also made significant efforts to reduce its dependency on imports. Until recently, solely fuel for VVER-1000 reactors was produced in the West. The challenge lied in securing alternatives to Russian supplies for the VVER-440 units, of which as many as fifteen reactors operate in the EU. In January 2023, the APIS (Accelerated Programme for Implementation of secure VVER fuel Supply) project was launched, uniting EU and Ukrainian operators of VVER-440 reactors, along with the European Commission and

[68] *Euratom Supply Agency. Annual Report 2023*, Luxembourg 2024, euratom-supply.ec.europa.eu.
[69] *Market Observatory*, Euratom Supply Agency, euratom-supply.ec.europa.eu.
[70] V. Jack, 'French-Russian nuclear relations turn radioactive', Politico, 20 April 2023, politico.eu.
[71] 'Biden-Harris Administration Enacts Law Banning Importation of Russian Uranium', US Department of Energy, 14 May 2024, energy.gov.

other organisations, and designating the American company Westinghouse as the coordinator.[72] One of APIS's primary objectives is to facilitate the production, supply, and use of non-Russian fuel in Russian reactors.[73] In September 2023, Westinghouse fuel was loaded into a Ukrainian reactor for the first time.[74] Furthermore, Framatome is collaborating with all EU operators of VVER reactors on similar initiatives to produce 'European' fuel for these reactors as part of the SAVE project.

Recently, several fuel supply contracts have been signed as alternatives to Russian supplies, with more currently under negotiation. Beginning in 2025 or 2026, Westinghouse is set to supply fuel to Czech nuclear power plants: as the sole supplier for Dukovany and in collaboration with Framatome for Temelín.[75] In May 2024, Westinghouse fuel was loaded into the Kozloduy Nuclear Power Plant in Bulgaria for the first time.[76] Finland's Fortum also signed a contract with Westinghouse, while its contracts with Russia are set to expire in 2027 and 2030, respectively.[77] Similar actions are evident in Slovakia, where Westinghouse Sweden signed a contract with Slovenské Elektrárne in August 2023. Consequently, it will be possible to utilise the fuel within a year after the licence is granted.[78] It is anticipated that imports of nuclear fuel from Russia to the EU will begin to decline from late 2024 or early 2025.

72 *APIS project in a nutshell*, APIS, apis-project.eu.

73 'European consortium focuses on VVER fuel', World Nuclear News, 7 July 2023, world-nuclear-news.org.

74 See 'Westinghouse VVER-440 fuel loaded into reactor', World Nuclear News, 11 September 2023, world-nuclear-news.org.

75 In the initial phase, for approximately five years, Framatome will supply the fuel under a licence granted by the Russian corporation TVEL. For further details, see K. Dębiec, 'Fiala's government halfway through its term: security reinforcement overshadowed by economic problems', *OSW Commentary*, no. 574, 16 February 2024, osw.waw.pl.

76 'Westinghouse Delivers First VVER-1000 Fuel Reload to Bulgaria', Westinghouse, 29 May 2024, info.westinghousenuclear.com.

77 P. Vanttinen, 'Two Finnish nuclear reactors to receive fuel from US', Euractiv, 23 November 2022, euractiv.com.

78 'Slovenské elektrárne and Westinghouse fuel supply agreement', World Nuclear News, 25 August 2023, world-nuclear-news.org.

CONCLUSIONS

Despite the significant reduction in the EU's energy dependency on Russia since 2022, these ties have not been completely eliminated. This dependency is particularly pronounced in Central Europe and the Baltic states, resulting from both genuine difficulties and, arguably to a greater extent, a lack of political will to terminate energy cooperation with Moscow. Slovakia, Austria, Hungary, and, to some extent, the Czech Republic not only continue to import Russian gas and/or oil but also remain reliant on these supplies. Import ties also persist in Western Europe, notably in France, Belgium, and Spain. While these ties have a considerable economic impact, they do not pose a significant threat to the energy security of Western European countries.

Central Europe's continuing dependency poses a significant risk for the region and, consequently, for the entire EU, especially given the ongoing war. Any disruption or cessation of supplies to the region would jeopardise its energy security, particularly during periods of high demand, as alternative supplies are costly and logistically complex. This is evident in the ongoing discussions in Vienna and Bratislava regarding the potential consequences of a likely discontinuation of Russian gas transit via Ukraine, beginning in early 2025, as well as the search for alternative sources and routes. This is also apparent in Hungary's anxious response to the partial shutdown of Russian oil supplies in July 2024. Furthermore, as EU member states continue to import Russian energy, they not only help finance the aggressor, but also undermine efforts to pressure the Global South to limit energy cooperation with Moscow.

Simultaneously, most EU countries that remain dependent on Russian fuel are making concerted efforts to minimise and eliminate these ties. The Czech Republic plans to terminate its dependence on Russian oil by 2025, while the Baltic states aim to connect to the European electricity grid by February 2025. Austria and Slovakia are progressively intensifying their diversification efforts, anticipating the likely cessation of gas transmission via Ukraine at the end of 2024. In the EU, there are ongoing discussions regarding the imposition of an embargo on Russian LNG imports (currently, their transshipment at EU terminals has been banned). However, not all EU member states are committed to efforts to eliminate these remaining Russian influences. Hungary serves as a clear example, as it not only maintains but also deepens its dependency by increasing gas imports and continuing the Paks II nuclear project since the onset of the war. Furthermore, there are no definitive legal proposals regarding

the regulation of gas imports from Russia into the EU or future EU-Russian cooperation in the nuclear sector.

The disconnection of the Baltic states from the post-Soviet IPS/UPS system and their synchronisation with the continental European electricity grid in February 2025 will represent a significant leap toward reducing dependency on Moscow. This will sever one of the last significant strategic links Lithuania, Latvia, and Estonia, (and the EU) still maintain with Russia. Additionally, similar to Ukraine's earlier emergency connection, it will enhance the role of their neighbours, such as Poland, in cross-border electricity cooperation, including ensuring stability and security of supplies for these countries.

The end of 2024 and the beginning of 2025 – typically the autumn-winter period when energy and raw material demand is at its highest – may present significant risks in the energy sector within a broader context. This arises from the expiration of key Russian-European ties during this period (the Russian-Ukrainian transit contract and the Baltic states' electricity connections), as well as the risk of Russia exploiting these ties, while they remain in place, along with other vulnerabilities to undermine individual member states and the EU as a whole. Furthermore, given the ongoing Russian attacks on Ukraine's electricity and heating infrastructure and the continuous destruction of these systems, Ukraine will likely require increased support from the EU in the energy sector during the 2024/2025 winter season. Therefore, it is essential for EU countries and the entire community to prepare for the forthcoming challenges and requirements. These include:

1. support for Kyiv in preparing for and enduring the winter,

2. reduction of gas supplies through Ukrainian territory and potential hostile actions by Russia in the gas sector (such as the destruction of Ukrainian infrastructure critical to the EU, including storage facilities),

3. potential non-cooperative behaviour from Moscow during the Baltic states' transition to the European electricity grid and in the months preceding it.

As the autumn-winter period approaches, it coincides with the establishment and initial operations of the new European Commission. It remains uncertain when and under whose leadership the Directorates-General responsible for energy and climate issues will commence operations. Compounding the complexity, since July 2024, Hungary – a country that takes a notably different

stance from the majority of EU member states regarding energy cooperation with Russia – has held the presidency of the EU Council. Given these circumstances, it is crucial to be prepared for potential challenges and to manage risks effectively, particularly during Poland's presidency in the first half of 2025. The threats related to supply security and the energy sector as a whole that Central European countries may encounter present an opportunity to highlight the region's specific circumstances and advocate for solutions that minimise its dependence on Moscow at the EU forum. Poland's leadership of the Visegrád Group (V4) from July 2024 to June 2025 could also be instrumental in advancing these objectives.[79]

Poland's presidency of the EU Council, coupled with the energy risks associated with remaining dependencies on Russia, may particularly encourage efforts to tighten existing sanctions and enhance their effectiveness. This period may also facilitate the development of a clear EU policy concerning Russian gas imports and the broader context of current and future energy cooperation with Moscow, including cooperation in nuclear energy. The ongoing and anticipated state of energy links with Russia, along with related risks and mitigation strategies, should become key topics in discussions regarding the new EU energy security strategy. This will also be pertinent to the planned revision of the EU regulation on the security of gas supply.

Poland's successes in reducing its dependence on Russian energy resources position it as a potential leader in advocating for a full EU-wide cessation of imports of Russian raw materials and energy carriers. This initiative could involve imposing sanctions on Russian gas and LNG imports, halting the flow of oil through the southern section of the Druzhba pipeline, and establishing a pathway for disengaging from nuclear energy cooperation with Russia. Such ideas appear to be gaining traction within the EU. This shift was evident in Ursula von der Leyen's statement during her keynote address to the European Parliament, where she asserted that the era of dependence on Russian hydrocarbons had ended once and for all. Furthermore, fifteen EU member states emphasised the urgency of accelerating the phase-out of Russian fossil fuels during an informal energy council meeting, signalling growing support despite opposition from Hungary. Both the keynote address and the council meeting were held in mid-July 2024.

[79] The V4 has experienced a loss of cohesion in recent years due to significant political differences concerning Russia and energy cooperation with this country. This, in turn, has diminished its effectiveness as a tool for advocating the shared interests of its members within the EU.

The synchronisation of the Baltic states' power grids with Europe's – scheduled to occur via a connection with Poland during its presidency of the EU Council in February 2025 – may provide an opportunity to further emphasise the importance of eliminating energy ties with Russia. This event warrants high-profile recognition across the EU.