### THE RUSSIA-UKRAINE WAR AND THE EUROPEAN ENERGY CRISIS

### რუსეთ-უკრაინის ომი და ენერგეტიკული კრიზისი ევროპაში

#### Lia Bibilashvili

Doctor of Economic Sciences Associate Professor at Gori State University 53 Ilia Chavchavadze Ave, Gori, Georgia +995 599556495 <u>lbibilashvili67@gmail.com</u> https://orcid.org/0000-0001-8016-3544

**Abstract.** Energy security has become a major concern as a result of the war in Ukraine, both in terms of the sanctions imposed by other countries on Russia and the danger that Russia poses to the energy security of Europe. Moscow has repeatedly threatened to cut off supplies to Europe if Allies interfere in the war. Europe's energy dependence on Russia became especially relevant after the start of the Russia-Ukraine war. The article will discuss the energy attitude of Russia and Europe, challenges and future plan. Also in the article you will find a map showing the type of energy relations of European countries with Russia.

Keywords: war, energy dependence, oil, Europe, Russia, political, economic, and environmental tradeoffs.

ლია ბიბილაშვილი ეკონომიკის დოქტორი, გორის სახელმწიფო უნივერსიტეტის პროფესორი, ქ. გორი, ჭავჭავაძის ქ., No53, 1400, საქართველო, +995 599556495 <u>lbibilashvili67@gmail.com</u> <u>https://orcid.org/0000-0001-8016-3544</u>

### აბსტრაქტი

რუსეთ-უკრაინის ომის დაწყების შემდეგ ენერგეტიკული უსაფრთხოება გახდა ევროპის ერთ-ერთი მთავარი საზრუნავი, როგორც სხვა ქვეყნების მიერ რუსეთის წინააღმდეგ დაწესებული სანქციების შედეგი. მოსკოვი არაერთხელ დაემუქრა ევროპას გაზის მიწოდების შეწყვეტით, თუ ისინი ომში ჩაერევიან. შესაზამისად, ევროპის ენერგეტიკული დამოკიდებულება რუსეთზე განსაკუთრებით აქტუალური რუსეთ-უკრაინის ომის დაწყების შემდეგ გახდა. სტატიაში განხილულია რუსეთისა და ევროპის ენერგეტიკული დამოკიდებულება, გამოწვევები და სამომავლო გეგმა. ამასთანავე, სტატიაში მოცემულია რუკა, რომელშიც ნათლადაა ნაჩვენები ევროპის ქვეყნეზის ენერგეტიკული დამოკიდებულება რუსეთთან.

საკვანძო სიტყვები: ომი, ენერგეტიკული დამოკიდებულება, ნავთობი, ევროპა, რუსეთი, პოლიტიკური, ეკონომიკური და ეკოლოგიური ვაჭრობა.

**Introduction.** In August 2022, Russia has stopped the flow of gas via the Nord Stream 1 pipeline to Europe, citing the need to carry out repairs, in a move that has heightened already acute nervousness over the reliability of winter energy supplies. The European Union (EU) has already announced an ambitious roadmap to phase out Russian oil and gas imports by 2027 in addition to banning Russian coal imports by August of 2022. There are multiple paths, and it is not yet clear which one Europe will take. Europe must respond to pressing short-term demands such as preparing for a possible supply disruption if Russia cuts off natural gas pipeline flows through Ukraine and Belarus. This means finding alternative suppliers of liquefied natural gas, burning more coal, and postponing the nuclear phase out in some countries.

In the medium to long-term, Europe must decide whether it will focus on building new infrastructure to support LNG imports, accelerate a transition to alternative and green energy, or some combination of both.

**Reason of research.** The purpose of the study is to examine the impact of the Russia-Ukraine war on Russia's energy relationship with Europe. Characterization of the main challenges and formulation of relevant recommendations.

**Method.** The scientific article is based on such research methods as empirical analysis, comparative-historical method, causal-comparative analysis, synthesis, abstraction, systematic analysis, modeling.

Russia has controlled Ukraine's natural gas supply for many years by either setting prices or denying access. In the past, the cost of natural gas sold to Europe served as a barometer for the quality of ties between the two countries; the lower the price, the better. Over the past decade, however, both Russia and Ukraine have grown less dependent on one another from an energy (natural gas) perspective. For Russia, the construction of the Nord Stream pipeline, which became operational in 2011, offered an alternative route to lucrative European markets, bypassing the need for Ukrainian pipelines. For Ukraine, with European support, natural gas may now be bought and transported from Europe, thereby supplanting Ukraine's dependence on Russian natural gas.

The fundamental problematique of European dependence on Russia remains though. This presents new challenges in the current geopolitical environment when the perceived safeguards of European-Russian economic interdependence are overshadowed by a military, economic, and diplomatic confrontation on NATO's Eastern flank. What was unthinkable to most West European leaders before Russia's invasion of Ukraine – that Russia may weaponize natural gas by cutting supplies to Europe-is now a reality. This cut-off may even be legally justified by Russia, which could claim a *force majeure* or argue that the deteriorating security environment makes it impossible to provide a secure flow of gas supplies.

Given the realization of Russia's willingness to break international law and challenge the postwar international order, Europe is now eager to extricate itself from the limits of energy dependence. Because of Europe's high dependence on Russian natural gas, Allies and partners have fewer options for pressuring Russia to stop the war and withdraw troops from Ukraine. The most painful sanctions on Russia that the international community could inflict would target petroleum exports, but they are (at the time of writing) off the table because of energy security and their impact on European economies. In the meantime, having prepared for such a confrontation with Europe since the 2014 sanctions, Russia's economy may be resilient enough to withstand the new sanctions, particularly with the help of China, non-aligned states such as India, and the ability to export petroleum to the global market (excluding the US and UK).

Europe began to import natural gas from Russia during the Cold War. Thirty years after the end of the Cold War, the level of dependence on Russian natural gas varies across Europe. Generally, the level of dependence is the greatest in the east of Europe and reduces westward as illustrated in the below figures.

Figure 1. Russian gas dependence

# **Russian gas dependence**

(Russian gas as a share of total energy consumption, 2020, percent)



### **Figure 2: Output losses**

## **Output losses**

A Russian gas supply shut-off has varying impacts across Europe. (percent of GDP)



**Source:** International Monetary Fund <u>https://www.imf.org/en/Blogs/Articles/2022/07/19/blog-how-a-russias-natural-gas-cutoff-could-weigh-on-european-economies</u> accessed 24.11.2023

The war between Russia and Ukraine has accelerated EU gas policy away from bilateral agreements to the EU level. Not only has the German government suspended the Nord Stream 2 pipeline, but the EU has also announced a shift in bargaining with suppliers to Brussels. This means that in the

future, it is the European Commission that will negotiate natural gas contracts with suppliers thereby strengthening the bargaining power of the entire bloc. By itself, this does not change the volume of natural gas that can be traded, but it will improve the leverage of European customers in the purchasing process, with Russia as well as with other suppliers. For Russia, the policy will remove the ability to play one European country against another, which Russia has used to sow division. EU members agreed to the new procurement mechanism on 22 March 2022, and the EU has also announced a new energy security fund to help offset the costs of rising energy prices in the short term, and transition away from Russian imports in the longer term. A new EU investment fund will also support the construction of infrastructure to enable Europe to import more LNG as an alternative to Russian pipeline delivered natural gas.

Finally, in order to overcome trade and commercial restrictions that have blocked direct access to Central Asian natural gas, new pipeline projects connecting southeast Europe to supplies in Central Asia are likely to receive a boost from European policy makers and, by extension, investors.

In the near-term, the main barrier to achieving independence from Russian natural gas is infrastructure and pricing. Europe is "married" to Russian natural gas because of existing pipelines and the structure of some states' economies (dependence on natural gas for electricity, heating, and industrial production). To extricate from this dependence, LNG terminals must be constructed.

Finding alternatives to natural gas as an energy source is another barrier because they requires more expanded change of infrastructure. For example, changing the power source for electricity generation from natural gas to coal is impossible unless the plant has dual-fuel capacity. Electricity generation from wind or solar also requires new infrastructure and depends on local weather patterns. While nuclear generation could replace a substantial portion of Russian supplies, it carries other risks ranging from environmental to political. Plus, the experiences of constructing new facilities in the UK (Hinkley Point C) and Finland (Olkiluoto-3) demonstrate that nuclear plants require participation from multiple commercial and governmental entities. The costs and lead times make them unattainable in the near to mid-term. Moreover, public support for nuclear energy varies across Europe. For example, there is a long tradition of nuclear opposition in Germany, which contributed to the German nuclear phase out under the Merkel government. Even restarting moth-balled nuclear power plants would probably be untenable politically. Countries in Eastern Europe, however, are more open to nuclear power, particularly if it contributes to energy independence from Russia.

Furthermore, other energy sources that are available, cost effective and compatible with existing infrastructure may not be compliant with the EU's strategy to achieve carbon neutrality by 2050. This is the main problem for coal. The political and economic obstacles to putting energy policies into practise differ from nation to nation, even while the EU can plan a role in formulating legislation and policies.

**Conclusions and recommendations.** In case energy supplies are cut, either by Russia or due to European sanctions, diverting supplies from Asia and North America to Europe would blunt the initial impact. The greatest hardship would be experienced in the winter months when demand is the highest. Therefore, the EU's goal of achieving 80 percent capacity of its gas reserves by November 2022 is of strategic importance.

There is limited way for Allies and partners to wean themselves off of Russian natural gas dependence without taking the chance of a global economic downturn that may undermine public support for Ukraine. Redirected LNG from US and Asian partners, combined with a resurgence of nuclear power and coal, can mitigate the immediate effects of 40% of Russia's natural gas imports. However, a mix of additional LNG facilities and pipeline infrastructure will be needed to replace Russia's energy imports. They are all expensive and will require time to implement.

At the same time, Russia appears to be moving forward with its own plan to find alternative markets to sell oil and gas. In doing so, both Europe and Russia are embarking on parallel journeys, to create new options. For Russia, this will mean developing LNG export terminals and courting non-European customers, most likely in China, India, and the developing world. While China is an existing customer, in February of this year Russia signed an agreement with its eastern neighbour to further deepen energy trade with the expansion of the Power of Siberia natural gas pipeline. India has indicated its intention to maintain regular trade relations with Russia despite the war in Ukraine. This would mean a return to a type of non-aligned status that India experienced during the Cold War.

The war between Russia and Ukraine highlights the necessity of quickening the Energiewende in Europe and applying pressure to decision-makers to make decisions and compromises that they previously had the option to delay or avoid. Unity among the Allies and partners will be a crucial need for achieving diversification away from Russian energy dependence. The public's backing will be necessary to uphold sanctions and make difficult choices about energy suppliers. On this front, alliance cohesion is also necessary.

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