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THE EFFECTS OF RUSSIA-UKRAINE WAR ON UKRANIAN ENERGY SECURITY AND EUROPEAN ENERGY SUPPLY SECURITY


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Abstract

Energy has still drawn substantial attention for both developing and industrialised countries in the aspect of the needs of their economies, businesses and households. For Ukraine as a resource-rich economy, energy security and the efficiency of the energy sector are the bases for the national security of Ukraine. It has been triggered by the annexation of the Ukrainian Crimea by Russia and Russia-Ukraine war today. All these problems have urged Ukraine to determine modern energy policy and a national energy security model in the light of the concepts of energy security in the 21st century. As it is known, the energy crises between Russia and Ukraine directly affect the security of European Union energy supply in the context of natural gas flows. The main argument of this study is as follows: The Russia-Ukraine war has severely affected the energy security of Ukraine and this situation has led the European Union countries to finally consider taking steps to diversify the supply and to prevent further deterioration of the EU energy supply security. In this context, the article will analyse how the effects of the

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Russia-Ukraine war on Ukrainian energy security will affect EU energy supply security.

Keywords: *Russia-Ukraine War, Energy, EU Energy Security Policy, EU Energy Supply Security, Ukraine Energy Security.*

RUSYA-UKRAYNA SAVAŞININ UKRAYNA ENERJİ GÜVENLİĞİ VE AVRUPA BİRLİĞİ ENERJİ ARZ GÜVENLİĞİ ÜZERİNE ETKİLERİ

Öz

Enerji, gelişmekte ve sanayileşmiş ülkelerin ekonomilerinin, iş yaşamlarının ve halklarının ihtiyaçları açısından hala dikkate değerdir. Kaynak zengini bir ülke olarak Ukrayna için enerji güvenliği ve enerji sektörünün verimliliği, Ukrayna'nın ulusal güvenliği adına temel oluşturmaktadır. Bu durum, Rusya'nın Kırım'ı ilhakı ve bugün yaşanan Rusya-Ukrayna savaşı ile daha da tetiklenmiştir. Bu sorunlar, Ukrayna'yı 21. yüzyılın enerji güvenliği konseptleri ışığında modern enerji politikası ve ulusal enerji güvenliği modeli belirlemeye zorlamaktadır. Bilindiği üzere Rusya Ukrayna arasındaki enerji krizleri doğal gaz akışı bağlamında Avrupa Birliği enerji arz güvenliğini de doğrudan etkilemektedir. Bu çalışmanın temel argümanı şöyledir: Rusya-Ukrayna savaşı Ukrayna'nın enerji güvenliğini ciddi şekilde etkilemiş ve bu durum Avrupa Birliği ülkelerinin arzı çeşitlendirmek ve AB enerji arz güvenliğinin daha da kötüleşmesini önlemek için nihayet adım atmaya düşünmelerine vesile olmuştur. Bu bağlamda makale, Rusya-Ukrayna savaşının Ukrayna enerji güvenliği üzerindeki etkilerinin AB enerji arz güvenliğini nasıl etkileyeceğini analiz edecektir.

Anahtar Kelimeler: *Rusya-Ukrayna Savaşı, Enerji, AB Enerji Güvenliği Politikası, AB Enerji Arz Güvenliği, Ukrayna Enerji Güvenliği.*

1. INTRODUCTION

Energy security has still pursued substantial attention from all countries in the world. Many countries focus on the persistence of energy supply in the perspective of assuring the needs of their economies, business and daily life necessities. For this purpose, energy security strategies of the governments maintain to be one of the cornerstones of their foreign and domestic policies. This situation is also an important and continual concern for them. The main question for the governments is related to the addressing the nature of their energy security concerns. Mouraviev and Koulouri (2019) state “Are governments concerned with doing the right thing when they discuss energy security? This concern arises because, in many countries, the current emphasis on an uninterrupted energy supply does not adequately address the fundamental issues surrounding energy security. Governments frequently concentrate their efforts on creating supply chains that, in accordance with their political views, they consider to be dependable, as well as on contracts that may provide the nation with the necessary amount of energy resources. Supply chains and contracts are, however, vulnerable to significant power conflicts between countries in the modern, chaotic globe, leading to a variety of interruptions and renegotiations.”

In the twentieth century, the main concern related to energy security for the governments all over the world was to reach and achieve ‘oil’ acidly. The geopolitical importance of oil has been distinguished since the beginning of the century through its importance on World Wars and industry. Post-war, the importance of oil continued increasingly and most of industrialised economies did not produce enough for their demand and depended on imports from post decolonisation countries. In this century, energy security meant ‘access to oil’.

The increasing oil demand and the crisis in 1973 led to oil extraction in new areas and liberalisation in the global market.

Hereby, the number of private energy companies and international institutions increased and governments' interventions decreased in the global market. The concerns related to energy security were low during this century, but it changed at the beginning of the twenty-first century. Again, energy security drew attention of both industrialised economies and developing ones such as China and India. The main reasons of the attention drawn back are unpredictability of oil price, the increasing oil demand from Asian countries (the new powers' increasing demand for energy), the concerns related to the availability and status of oil suppliers, reduction of oil reserves in OECD countries and other importers and the power competition between international institutions and national oil companies (NOCs). The control over oil supply by OECD countries started to stop in the 1960s and 1970s with the formation of OPEC. On the other hand, the control over oil demand stopped at the beginning of the twenty-first century through Asian countries' increasing demand and NOCs (Kutlu, 2015). There are also other factors that have triggered the concerns over energy security in the last three decades. Some of them are the disruptions in the gas supply to the EU in 2006, 2009 and 2014 (Russia-Ukraine crisis) and again, the threats of Russia on gas supply to the EU today.

Finally, all these factors with the global security challenges today have increased and deepened energy security concerns. On the other hand, while the main energy security concern in the twentieth century was to access to oil, energy security paradigm has focused on creating multidimensional – economic, political and environmental – energy security strategies in the twenty-first century (IEA, 2021). It may be clear that there is struggle for comprising energy security by varying energy resources and routes. In this

context, states try to ensure their energy security policies through their national security policies, energy capacities, foreign affairs and the developments in global politics and energy sector. On the other hand, energy and its critical role and effect in the geopolitical competition have formed some sort of geopolitical division among countries like energy exporting countries, energy importing countries and energy transit countries.

Energy security, sustainability and competence of the energy sector are crucial for Ukraine national security. Although Ukraine has an important energy sector inherited from Soviet Union, there are many structural problems in the sector such as technological inefficacy, resource-intensive economy, disorganized structure, unqualified labor force and inefficient energy consumption (Bordoff and O'Sullivan, 2023). One of the milestones of energy sector in the world is the effect of the conflict between Russia and Ukraine in 2014. Russia annexed Ukrainian Crimea and Ukraine lost the control over its considerable oblasts (provinces) Donetsk and Luhans also known as Donbas territory at the end of the conflict.

In other respect, Sabbaghian and Rasooli (2021) emphasize the effect of the conflict in EU perspective as: "The political, security, and economic ties between Russia and the European Union have undergone significant changes as a result of the happenings in Ukraine. Russia and the West are currently engaged in a new Cold War as a result of the Ukraine issue. The suspension of relations between Russia and the European Union following the Ukrainian crisis can be seen in the adoption of a resolution against Russia for its illegitimate act of annexed Crimea to its territory, the exclusion of Russia from the G8 summit, the suspension of the new visa agreement, economic sanctions, particularly sanctions on those involved in the crisis, and a sharp decline in exports and imports. However, political considerations haven't yet interfered with Russia

and the European Union's energy cooperation, which have persisted.” (p. 178-179). In addition to 2014 Crisis, Russia-Ukraine war today urges Ukraine to form a national modern energy security model in spite of its energy assets and infrastructures and offshore fields of oil and natural gas.

The main argument of this study is that the Russian-Ukrainian war has severely affected Ukraine's energy security, which has prompted the European Union countries to finally consider taking steps to diversify supply and prevent further deterioration of EU energy supply security. In order for this argument to be justified, it must first be recognised that Ukraine faces the need for a modern energy policy and energy security model as a result of problems such as the annexation of Crimea in 2014 and the Ukrainian war launched by Russia in 2022. In this context, the article aims to analyse Ukrainian energy security in the new geopolitical context caused by the conflict and war with Russia in the past and present, along with its components, main energy problems and challenges of the current Ukrainian energy strategy. Primary and secondary sources have been used to support the main purpose and argument of this study, which used a descriptive method.

2. GEOPOLITICAL IMPORTANCE, ENERGY SECURITY AND EFFICENY OF UKRAINE

Ukraine's energy security and relations with neighbouring countries play an important role in shaping the country and its position in regional energy dynamics. Ukraine is an important energy transit route as well as a significant energy consuming country. Therefore, while developing cooperation in the field of energy, Ukraine has to consider both its own interests and the delicate balances of the countries in the region. Ukraine faces various challenges and opportunities in ensuring security of energy supply. Considering the security of energy supply, economic growth, industrial development and social welfare of Ukraine, we see that Ukraine is in a very sensitive geography. Ukraine's energy

demand is increasing in direct proportion to its rapidly developing economy and industry. However, the provision of reliable, affordable, diversified energy sources and suppliers can pose significant challenges.

Ukraine's geographical location at the crossroads of Europe and Asia places the country in a strategically advantageous position, but also exposes it to geopolitical tensions and uncertainties. In other words, Ukraine's energy relations with its neighbours have both opportunities and challenges. As a key transit country, Ukraine plays a vital role in transporting the energy resources of a large energy-rich country like Russia to the energy-demanding markets of Europe. However, this situation has changed dramatically, first with the annexation of Crimea in 2014 and then with the attempted invasion of Ukraine by Russia in February 2022.

The occupation of Ukraine, which started with Russian President Vladimir Putin's recognition of the independence of Donetsk and Luhansk People's Republics in Ukraine on February 21, 2022 and continued on February 24, 2022, seems to continue for a while, considering the conditions on the ground. The attempt to invade Ukraine is not the first intervention by Russia, which has always displayed a controlling attitude towards the independent states established in the region after the collapse of the Soviet Union and defined the countries of the region as "areas of interest". Russia's invasion of Ukraine has brought massive instability, violence, economic fragility and human tragedy as the effects of that invasion have fluctuated across the continent and beyond. The crisis has also deeply affected the global energy sector. Why Ukraine is important for Russia?

Since 1991, Ukraine has become not only a subject of international relations, but also an object of regional competition intensifying at various levels. Zbigniew

Brzezinski made the following statements about this situation in his book “The Grand Chessboard”:

“Ukraine, a new and important area on the Eurasian chessboard, is a geopolitical axis because its existence as an independent country helps transform Russia. Without Ukraine, Russia ceases to be a Eurasian empire. Ukraine's loss of independence would have immediate consequences for Central Europe, turning Poland into the geopolitical axis on the eastern border of a united Europe. The impact on Kyiv is the reward of the ever accelerating race between many powers, both local and international. Moreover, the ‘Ukrainian game’ is not a phenomenon of the 21st century. Its roots can be traced back to the Middle Ages, which consistently contributed significantly to the instability of the entire region” (Brzezinski, 1997: 45).

For Russia, Ukraine has geostrategic importance as it is one of the most important borders with the West. In addition, this strategically critical position of Ukraine has turned the last conflict between the two states into a multi-actor international conflict in which the third parties have been involved (Gierczak, 2020: 2). In this context, the impact of energy security on national security has been an important example for Ukraine. The economic, industrial, political and military (Crimean and Eastern Ukraine crises) crises faced by Ukraine have caused it to be unable to provide energy security by now. The location of Ukraine between Europe and Russia and the energy transformation lines passing over its territory make Ukraine important geostrategically. At the same time, the existence of independent Ukraine in the Post-Soviet geography revealed the need to pay special importance to Ukraine, since Russian exit to the Black Sea has been restricted. However, when Ukraine wished to act independently from Russia, it squeezed between the West and Russia and this situation caused some crises. These crises created geopolitical restrictive effects

in Ukraine. As of 2014, Ukraine, which is already dependent on Russia for natural gas supply has also lost Eastern Ukraine and Crimea, where the largest resources of oil, natural gas, coal, silver and aluminium are located. Thus, Ukraine lost its position that restricted Russia's exit to the Black Sea.

The geographical location of Ukraine, its importance in terms of energy security, hosting many pipelines belonging to Russia and its position at a key point in Eurasian energy security are of particular interest to Europe. 66% of the natural gas supplied to the EU reaches Europe by passing through the territory of Ukraine. One pipeline on the territory of Ukraine carries Russian oil, and three pipelines carry Russian gas to Europe. Ukraine is the leading transit country in Europe. It has an advantageous geostrategic position as a kind of 'gas bridge' between Russia and Western countries. The mentioned oil pipeline is the Druzha (Friendship) Line and the natural gas pipelines are the Bratsva (Brotherhood) Line, Soyuz (Unity) Line and the Trans-Balkan Line (Karagöl and Kaya, 2014: 9). For instance, the most important and problematic pipeline through which Russia exports oil to European countries is the Druzhba pipeline. This line is 4000 km, and the longest pipeline in the world. It carries 70 % of Russian oil to Europe and it is one of the main reasons for the EU's dependence on Russia for energy. It is a pipeline that travels through Ukraine, Slovakia, the Chechia, Poland and Hungary, eventually delivering oil to Germany (Yılmaz, 2017: 119).

Energy is one of the most critical resources for the survival of states and an important factor driving economic development. Improvements in energy efficiency will be very important for countries to achieve long-term sustainable economic growth. Due to the ongoing Russian occupation of Ukraine since February 2022, Ukraine is one of the countries in need of these improvements. However, Ukraine had and still has serious energy problems with Russia. For

example, in 2006, half of Ukraine's energy consumption was provided by natural gas. 66 % of Ukraine's natural gas use was obtained from Russia. The energy policy of the Ukrainian administration has focused on establishing a balance between not disturbing Moscow and improving relations with the EU. The pro-Western President Viktor Yushchenko, who came to power in 2005, pointed out that he would make serious reforms so that Ukraine could join NATO and the EU as soon as Ukraine was ready. Therefore, in a short period of time, Gazprom increased the price of natural gas from \$50 to \$230 per thousand cubic meters. A short-term cut was applied to Russia and Ukraine on 31 December 2006 due to disagreements in offers and payments (Woehrel, 2009: 7-8).

Gazprom then implemented a long cut due to disagreements with Ukraine on prices and payments. The company hoped that Ukraine would avoid using gas transported through its territory to Western Europe, but She continued to use gas. As a matter of fact, Gazprom accused Ukraine of stealing gas and cut the flow completely in January 2009. The consequences of this situation were severe especially for the Southeast European countries. Since Gazprom is not concerned about the continuity of the EU's supply, instead of being a supplier that the EU can trust, it has become unreliable and applied cuts with the thought that it can negotiate better with both Ukraine and the EU (Luciani, 2015: 25).

2010 has been a critical year for Ukraine. After the election of pro-Russian Viktor Yanukovych as the President of Ukraine in 2010, the "Association Agreement" with the EU was suspended. After this incident, Yanukovych and Putin signed both a discount in natural gas and an economic aid agreement worth 15 billion dollars. This agreement has disturbed the pro-European Union people and opposition in Ukraine. As a result, the protests against the

government with large participation increased the tension with Russia even more (Semercioglu, 2016: 190). Russia, which has been in an effort to control the pipelines in Ukraine, tried to find alternatives to the natural gas transportation routes passing through Ukraine after these events. In this context, Russia has developed new energy export routes to Western Europe via the Nord Stream Pipeline from the Baltic Sea in 2012 and the South Stream Pipeline through the Balkans in 2015. Thus, Russia's pressure on Ukraine in energy-related issues has decreased. As a result of such a development, it was thought that Russia could put more pressure on Ukraine in non-energy matters. On the other hand, the dependence of Western European countries on Ukraine's gas transportation infrastructure has made them think about their share in the future of Ukraine (Woehrel, 2009: 7).

This situation can be expressed as Ukraine's beginning to lose its role as an indispensable transport country in energy security, in particular for natural gas. According to Ukraine Naftogaz data, oil volumes transported in 2010 decreased by 8,733.9 thousand tons (or 22.7%) compared to 2009 and amounted to 29,801.4 thousand tons. After the energy crises with Ukraine, Russia decided to bypass Ukraine and build two new natural gas pipelines (Mepxo, 2011: 36). The Nord Stream over Germany and the Turkish Stream over Turkey natural gas pipelines have made it possible for Russia to distribute natural gas with their carrying capacities. To eliminate or minimize the Ukraine option, Russia signed a promising 30-year contract with China for the supply of Russian natural gas in May 2014. Additionally, this accord gave Russia access to new avenues for energy cooperation. After the natural gas crises with Ukraine, the most important move of Russia was to remove Ukraine from the position of being a transport country for natural gas exports and to find new markets.

With these crisis, the EU realized that its high dependence on Russia in the field of energy was extremely risky for itself and began to seek alternative suppliers and transit countries. The second Ukraine-Russia crisis at the beginning of 2009 prompted the EU to produce urgent solutions for energy supply security. With this crisis, a progress was observed in the energy policies of the EU member states to act together gradually. This crisis was seen as a step in the development of a common energy policy within the EU (Yorkan, 2009: 34). As a matter of fact, EU countries increased their gas storage capacity in their stocks after these crises. In conclusion, Ukraine, which is a transit country in the energy flow to the European Union, has both advantages and disadvantages. Being on the axis of Russia and Europe makes it difficult for Ukraine to achieve a certain stability within the country. As a transit country in energy flow, She is open to external interventions (Klare, 2005: 176-177).

The Russia-induced instability in Ukraine, which started in 2014 and continued in 2022, has a negative impact on the energy flow to EU countries. Seeking stability, Ukraine adopts Western-oriented policies to balance Russia, which it sees as the biggest threat. As a matter of fact, with the war that started in 2022, Ukraine is now in a closer relationship with its Western allies in terms of energy. On the other hand, while the main energy security concern in the twentieth century was access to oil, the energy security paradigm in the twenty-first century has focused on building multidimensional, economic, political and environmental energy security strategies. It is clear that there is a struggle to create energy security through diversification of energy sources and routes. Ukraine has realised that it has to fight such a struggle with the war that started in 2022.

3. STRATEGIC ENERGY RESOURCES AND SUPPLY CHAIN

Competitiveness, sustainability and supply security have been prioritized in EU's energy strategy papers issued since 1990s. Concerning supply security, lowering the augmenting energy import reliance of the EU through lessening the demand, to differentiate within the EU's energy mixture by benefiting from competitive renewable energy resources, the route diversification besides variety in the imported energy have been critically important issues for EU since 1990s (Kısacık and Güçyetmez, 2022: 102-105).

The triumph of Yuschenko following Orange Revolution in Ukraine triggered truculent talks on gas prices. Kyiv was paying just one-third or even lower compared with the payments of Western Europe. Subsequently, Russia has questioned subsidizing Ukraine with less-expensive gas amounted to billions of dollars yearly at a time when Ukraine stayed already in a situation of billions of dollars within arrears over its gas charge and was then ruled by pro Euro-Atlantic president wishing to transform its country's orientation from Russia. Both 2006 and 2009, Moscow would halt gas deliveries to Ukraine. Putin has too mentioned stealing gas allocated for Europe by Ukrainians just as in 2006. For Russia, since then, Ukraine should not get so much discounted gas. These crises have stated a fresh prominence both for Russia and Europe resulting with their very different definitions of energy security (Yergin, 2020: 82-83).

Between 2000 and 2013, Ukraine's energy mix would be coal: 36%, gas: 34% and nuclear: 18%. Ukraine's gas usage has decreased from 124 billion cubic meters (bcm) in 1990 to 50.4 bcm within 2013 and also to 33.8 bcm by 2015. Simultaneously, Ukraine has achieved gas imports from adjacent European states explicitly from only more than 2 bcm in 2013 to 10 bcm as of 2015 via reverse stream of chiefly Russian pipelines. Ukraine holds verified 1.2 trillion cubic meters (tcm) gas reserves. For U.S. Energy Information Administration,

Ukraine's recoverable shale gas reserves are projected at 5.2 tcm. The eight pipelines linking Russia-Europe via Ukraine can transport a joint stream of 142 bcm-gas and together access into many European countries. These pipelines have been viewed as life gas network to Europe. In 2013, Europe would get nearly 85 bcm-gas by Ukrainian pipelines. By 2014, almost 51 % of European gas purchases originated from Gazprom would come via Ukraine in winters, decreased from 90 % occurred at winter 2009 (Grigas, 2017: 176-179). The charge clash amid Moscow-Kyiv would cause fresh gas supply disruptions toward Ukraine by summer 2014, threatening gas transportation to the Union. Undeniably, the dispute regarding these confrontations endures too, evaluated by several experts as Moscow's strategical manoeuvres for increasing its impact besides negotiating catalyst in the international field (Rodríguez-Fernandez et al., 2020: 1).

In 2021, Kyiv has approved the Energy Security Strategy of Ukraine until 2025, recognizing the chief pressures to country's energy security as the authorization of Nord Stream 2, outdated energy substructure, and a noteworthy portion of energy purchases. The Strategy develops the subsequent responsibilities: to halt energy purchases from Russia and Belarus, to materially detach Ukrainian power nets from Russian and Belarusian ones, and to harmonize the process of the United Energy System of Ukraine and European operators. The Strategy delivers for liberation of the state in evolving and executing national and foreign energy strategies, dropping Ukraine's need on energy purchases, safeguarding the divergence of energy resources and energy-saving know-hows, motivating the upsurge within internal gas output, backing for public-private business tools to guarantee nation-wide energy security (Lyamar, 2023: 44-45).

The existence of noteworthy coal and gas deposits in Ukraine enabling to encounter country's energy requirements, high capacity for the growth of

renewable energy in Ukraine are some of the assets of Kyiv. Conversely; need on gas purchases leading to higher purchasing charges and declined energy security of the country, absence of adequate substructure for conveyance of energy leading to low availability for consumers and augmented transference charges represent some weaknesses of Ukraine's energy sector. The growth of renewable energy can aid in reducing need on purchases and safeguard the sustainability of the energy sector, advancing collaboration with energy producers to safeguard constancy of supply and lessen purchasing charges represent some opportunities for Kyiv. Full-sized military hostility of Moscow counter to Kyiv leading to the compensation of diplomatic and foreign trade relationships between them, upsurge in charges for purchased energy leading to more expensive charges and diminished attractiveness of state; variations within climate settings and ecological security necessities which might cause limits on practising conventional energy and necessity for adjusting further ecologically welcoming energy resolutions are some dangers before Kyiv (Lymar, 2023: 45).

It should be concluded that Ukraine has remained an important transit country since the Cold War between Russia and Europe in that more than 75 percent of Moscow's oil and natural gas have been transported via Ukraine. This has transformed the Ukraine a most favourable nation in terms of energy trade. In addition to this, one should keep in mind that this situation has begun to change after Kyiv's strong orientation to Europe in 2004. Since that time, primarily we have been experiencing several energy disruption crises between Russia-Ukraine-Europe trio. In that context, both Russia and Europe have been prioritizing different natural gas transportation projects that bypass Ukraine or at least we can say decreasing the dependency level on Ukraine. As of 2021, Ukraine has declared its National Energy Security Strategy until 2025 that aims to decrease its high reliance on Russia and Belarus, to augment its efforts to be

a part of European energy system as well as to increase its renewable energy potential. However, it ought to be remembered Ukraine does have such deficiencies such as non-appearance of acceptable set-up for transference of energy ending up with low accessibility for end-users, Regular military aggression of Moscow contrary to Kyiv ending up with the reimbursement of diplomatic and external commercial relations amid them. To conclude, it is /will be very difficult for Ukraine to realize its energy security policies due to some internal and external factors. Moreover, we should add the negative consequences of the ongoing 2022 War between Moscow and Kyiv. The ongoing of this war will be effective on how can Ukraine accomplish its energy security priorities in the near and short terms.

4. THE EFFECTS OF RUSSIAN INVASION AND THE GEOPOLITICAL OUTPUTS: 2022 RUSSIAN-UKRAINE WAR AND ITS POSSIBLE IMPACTS ON EUROPEAN ENERGY SUPPLY SECURITY

For the EU, between 2005 and 2015, utmost imports of solid fuels, crude oil and gas would originate from Russia. Targeting to progress energy security, the EU puts on procedures concentrated over the decreasing of fossil fuel usage and the differentiation of the fundamental providers. It similarly encourages an upsurge in the practise of renewables, progresses in energy efficiency besides bigger participation within climate policy (Rodriguez-Fernandez et al., 2020: 1-9). By 2022 subsequently Russia-Ukraine War, above few EU states have practised autonomous and unfounded delivery disruptions originated from Russia (European Commission Energy, n.d.). For Eurostat's statistics issued on April 19, 2022; by 2021, EU's gas import dependency persisted 83%. The topmost dependency on gas imports within 2021 in EU remained as Sweden (102%) and Lithuania (101%). The lowest dependence on gas imports was in Romania (24%), Denmark (26%). Contrariwise, the topmost share of gas in the

energy mix happens in Italy (40%) and its import dependence occurs 94% (Kısacık, 2022: 70-71).

Gazprom has mentioned that entire NS will have six benefits specifically (1) gas will be supplied from Yamal Peninsula to North-western Europe quicker. The longevity of the 2000 kilometer-pipeline passing through Ukraine has shown that gas transference has been expensive. (2) The operation cost of this project is lower. (3) When compared with the pipeline passing from Ukraine, the transference charge of this project is 1.6 times lower. (4) This project provides an important decrease in greenhouse gas emissions. (5) The non-existence of third partners between producer and consumer prevents the use of gas stream as a political mean. (6) The construction of the pipeline will increase the geopolitical stability besides stability of energy security between Russia and the EU. In October 2018, thanks to Route B Plan, the pipeline has begun to be constructed. When Germany, Austria and some countries emphasize just the project's commercial dimension, to Baltic countries and Poland, this pipeline can be weaponized by Russia and threaten the EU's energy security and geopolitical stability. Consequently, this project has caused disagreements amongst both states and international arena (Bichikliski & Nas, 2022: 154-155).

Despite the European Union's endeavours to lessen its increasing energy import dependence on Russia in the 2000s, it is clearly seen that due to decreasing internal energy resources as well as turmoils in EU's energy suppliers near abroad, Russia is keeping its position to remain the leading energy supplier of the EU. Even though the EU has been concentrating on developing renewable energy resources more in recent years, Moscow remains developing such brand-new natural gas transportation projects as Nord Stream 2 having 55 bcm capacity per annum. There exist numerous debates on whether or not this project will be advantageous for Russia and Europe. For instance, Russia

believes that this project is geoeconomically and geostrategically a WIN-WIN case for all the related parties whereas most EU countries and institutions emphasize it will further augment the asymmetrical energy dependence between Russia and Europe as well as it will more consolidate Russia's dominant position in the EU energy market in near and forthcoming terms. Therefore, it can be finalized that the fate of this initiative will be determined by the associated factors of 2022 Russian-Ukrainian War.

At the EU level, given the Russian outbreak to Ukraine in late February 2022, the prevailing German government has postponed the authorisation process of NS-2, highly welcomed by Ukraine (Kisacik, 2022: 71-73). For Kozcy et al. (2022: 8-9), it remains uncertain whether NS-2 will constantly stand commenced, and also political changes might also distress its becoming operational later on. The continuing sanctioning policies direct EU members to seek alternate suppliers besides currently, it appears highly improbable that Russian gas will constantly reappear. If Russian gas through NS 1-2 is not available, there will remain an instant gas non-existence. Meanwhile NS stays an underwater pipeline, gas originating from liquefaction stations of equivalent overall volume positioned adjoining Greifswald, the entrance point to Germany, could be circulated the same way the gas NS has stood. It stands not vibrant if this will remain sufficient to provide gas to regularly inner Central Europe. The Union lacks harmonization when members have extensively dissimilar choices for replacing Russian oil. Sanctioning Russian gas with its benefit in residential heating, stands a subject remaining even more delicate. It is seen that why certain countries are reluctant to get involved. If EU wishes to be powerful in energy, it should first activate the mottos of Energy Union and form a flattened admittance to energy including its own supply security amongst its members.

The EU's emergency gas plan would be effective on August 9, 2022 encompassing the request from members for decreasing their gas consumption and working for the filling of gas storage before winter comes. The strategy has been presented to respond the lack of delivery that would ascend if Russia were to detach its gas supply due to the confrontations regarding Russian "special operation to Ukraine". Gas supplies originated from Russia towards the Union, have before now been noticeably lessened in interchanges realised by many as Moscow's benefit from energy deliveries as weapons. For the strategy adopted by EU energy ministers, the reserves' goals can stand necessitated in emergency delivery. The strategy intends to serve for saving 45 bcm gas total. For EC, Germany, as a giant gas user, will ought to stand responsible for approximately 10 bcm of that volume (DW, 2022).

5. CONCLUSION

Energy and energy security is one of the most important issues for the economic and strategic development of all countries in the global system. Although a new energy source is found in a different geography of the world every day, it is known that the world's energy resources are rapidly depleting. Both the depletion of energy resources such as oil and natural gas and the wars and oil crises lead to serious concerns about energy security. Gradually over the years, Putin made revisionist foreign policy decisions by launching an invasion attempt against Georgia, annexing Crimea, and finally surrounding Ukraine after attempts to destabilize Donbass. Putin has caused a dramatic humanitarian catastrophe that has killed thousands of people. Putin declared Kiev as the cradle of Russian civilization, used the concept of historical Novorossiya (New Russia). He many times expressed nostalgia for the Soviet Union, rewrote the history of the Second World War, the importance of symbolic Crimea for Russian identity. Putin's these statements directly affected the lives and deaths

of many people right now. It turns out that Putin intends to control the entire territory of Ukraine for strategic purposes, in order to increase his geopolitical power and provide energy pipelines to European markets.

The crisis in Ukraine is likely to spread over a long period of time. The war can be considered as a negative supply shock for the global economy. Inflation, which is already high after the Covid-19 epidemic, has worsened further as the energy crisis and commodity price increases. In this long and exhausting war, both Russia and Ukraine have suffered and continue to experience serious financial losses. In fact, it is calculated that the cost of this war to the global economy has already exceeded 1 trillion dollars. Considering that the cost of the war to Russia is 900 million dollars per day and 600 billion dollars to Ukraine in total (Staten, 2022), the total global cost is expected to reach several trillion dollars. In this case, it is foreseen that the Ukrainian economy will contract seriously and be dragged into a deep recession. Not only Ukraine and Russia, the war has many losers outside of these two countries as well. The increase in energy prices, especially oil, is negative news for everyone except oil-exporting countries. Especially European Union countries are the countries most affected by the war.

However, there will also be possible winners of this order. Among the possible winners of this order, China ranks first. While the multipolar structure is developing, it is likely that China will fill the economic, military and financial power vacuum of Russia in the region. Countries that export oil and energy and even other precious metals and commodities other than Russia will also benefit. The USA, which isolates Russia from the international system, will also benefit from this conflict process. The USA is in the position of the economy that will be most comfortable and least affected by the war in Ukraine and the subsequent sanctions.

Ukraine is still weak and defenceless on energy security in the perspective of areas like its offshore fields of oil and gas and its other valuable energy assets and infrastructures. Therefore, Ukraine needs a modern and multi-focused energy security policy. To be successful, it must focus on assuring continuous accessibility of energy resources for all consumers, forming clear and competitive energy markets, keeping energy efficiency and taking care of environmental sustainability of the energy sector. Besides, Ukraine should try to decrease the dependence upon power supplies on Russia by way of increasing energy efficiency, variegation of supply and 'Europeanisation' of energy markets and attracting domestic and foreign investments after the external belligerences, interferences and the conflict and war with Russia.

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GENİŞLETİLMİŞ ÖZET

Giriş

Enerji güvenliği halen tüm dünya ülkelerinin büyük ilgisini çekmektedir. Birçok ülke, ekonomilerinin, iş ve günlük yaşam ihtiyaçlarının güvence altına alınması perspektifinde enerji arzının sürekliliğine odaklanmaktadır. Bu amaçla hükümetlerin enerji güvenliği stratejileri, dış ve iç politikalarının temel taşlarından biri olmayı sürdürmektedir. Bu durum aynı zamanda onlar için önemli ve sürekli bir endişe kaynağıdır. Hükümetler için temel soru, enerji güvenliği endişelerinin doğasının ele alınmasıyla ilgilidir. Yirminci yüzyılda, tüm dünyadaki hükümetler için enerji güvenliğiyle ilgili temel endişe, 'petrol'e ulaşmak ve onu elde etmek olmuştur. Petrolün jeopolitik önemi, yüzyılın başından bu yana Dünya Savaşları ve sanayi üzerindeki önemi ile ayırt edilmiştir. Savaş sonrasında petrolün önemi artarak devam etmiş ve sanayileşmiş ekonomilerin çoğu kendi talepleri için yeterli üretim yapamamış ve sömürgecilik sonrası ülkelerden yapılan ithalata bağımlı hale gelmiştir. Bu yüzyılda enerji güvenliği 'petrole erişim' anlamına geliyordu. Artan petrol talebi ve 1973'teki kriz, yeni alanlarda petrol çıkarılmasına ve küresel pazarda liberalleşmeye yol açmıştır.

Bu sayede özel enerji şirketlerinin ve uluslararası kuruluşların sayısı artmış ve hükümetlerin küresel pazara müdahaleleri azalmıştır. Bu yüzyıl boyunca enerji güvenliğine ilişkin kaygılar düşüktü, ancak yirmi birinci yüzyılın başında bu durum değişti. Enerji güvenliği yine hem sanayileşmiş ekonomilerin hem de Çin ve Hindistan gibi gelişmekte olan ekonomilerin dikkatini çekmiştir. Petrol fiyatlarının öngörülemezliği, Asya ülkelerinin artan petrol talebi (yeni güçlerin artan enerji talebi), petrol tedarikçilerinin mevcudiyeti ve statüsü ile ilgili endişeler, OECD ülkeleri ve diğer ithalatçıların petrol rezervlerinin azalması ve

uluslararası kuruluşlar ile ulusal petrol şirketleri (NOCs) arasındaki güç rekabeti bu ilginin temel nedenleridir. OECD ülkelerinin petrol arzı üzerindeki kontrolü 1960'lı ve 1970'li yıllarda OPEC'in kurulmasıyla birlikte sona ermeye başlamıştır. Öte yandan, Asya ülkelerinin artan talebi ve ulusal petrol şirketleri aracılığıyla petrol talebi üzerindeki kontrol yirmi birinci yüzyılın başında sona ermiştir. Son otuz yılda enerji güvenliğine ilişkin endişeleri tetikleyen başka faktörler de vardır. Bunlardan bazıları 2006, 2009 ve 2014 yıllarında AB'ye gaz arzında yaşanan kesintiler (Rusya-Ukrayna krizi) ve yine günümüzde Rusya'nın AB'ye gaz arzı konusundaki tehditleridir (Rusya-Ukrayna Savaşı).

Son olarak, tüm bu faktörler ve günümüzün küresel güvenlik sorunları enerji güvenliği endişelerini artırmış ve derinleştirmiştir. Öte yandan, yirminci yüzyılda temel enerji güvenliği kaygısı petrole erişim iken, yirmi birinci yüzyılda enerji güvenliği paradigması çok boyutlu - ekonomik, siyasi ve çevresel - enerji güvenliği stratejileri oluşturmaya odaklanmıştır. Enerji kaynaklarının ve güzergâhlarının çeşitlendirilmesi yoluyla enerji güvenliğini oluşturma mücadelesi verildiği açıktır. Bu bağlamda devletler enerji güvenliği politikalarını ulusal güvenlik politikaları, enerji kapasiteleri, dış ilişkileri ve küresel siyaset ve enerji sektöründeki gelişmeler üzerinden sağlamaya çalışmaktadır. Öte yandan enerji ve enerjinin jeopolitik rekabetteki kritik rolü ve etkisi, ülkeler arasında enerji ihraç eden ülkeler, enerji ithal eden ülkeler ve enerji transit ülkeleri gibi bir çeşit jeopolitik ayırım oluşturmuştur.

Enerji güvenliği, sürdürülebilirliği ve enerji sektörünün yetkinliği Ukrayna'nın ulusal güvenliği için hayati önem taşımaktadır. Ukrayna, Sovyetler Birliği'nden miras kalan önemli bir enerji sektörüne sahip olmasına rağmen, sektörde teknolojik yetersizlik, kaynak yoğun ekonomi, dağınık yapı, niteliksiz işgücü ve verimsiz enerji tüketimi gibi birçok yapısal sorun bulunmaktadır. Enerji sektörünün dünyadaki dönüm noktalarından biri de 2014 yılında Rusya ve

Ukrayna arasında yaşanan çatışmanın etkisidir. Rusya, Ukrayna'ya ait Kırım'ı ilhak etmiş ve Ukrayna, çatışmanın sonunda Donbas olarak da bilinen önemli oblastları (illeri) Donetsk ve Luhansk üzerindeki kontrolünü kaybetmiştir.

Diğer bir açıdan, Sabbaghian ve Rasooli (2021) çatışmanın AB perspektifindeki etkisini şu şekilde vurgulamaktadır: "Rusya ve Avrupa Birliği arasındaki siyasi, güvenlik ve ekonomik bağlar, Ukrayna'daki olayların bir sonucu olarak önemli değişikliklere uğramıştır. Rusya ve Batı, Ukrayna meselesi nedeniyle şu anda yeni bir Soğuk Savaş'a girmiş durumdadır. Ancak siyasi mülahazalar Rusya ve AB'nin enerji alanındaki işbirliğine henüz müdahale etmedi ve bu işbirliği devam etti. (p. 178-179). 2014 Krizi'ne ek olarak, Rusya-Ukrayna savaşı bugün Ukrayna'yı sahip olduğu enerji varlıkları ve altyapıları ile açık denizlerdeki petrol ve doğal gaz sahalarına rağmen ulusal ve modern bir enerji güvenliği modeli oluşturmaya zorlamaktadır.

Ukrayna, bu sorunların bir sonucu olarak modern enerji politikası ve enerji güvenliği modeli ihtiyacı ile karşı karşıya kalmıştır. Bu bağlamda çalışmanın temel argümanı aşağıdaki gibidir: Rusya-Ukrayna savaşı Ukrayna'nın enerji güvenliğini ciddi şekilde etkilemiş ve bu durum Avrupa Birliği ülkelerinin arz çeşitlendirmek ve AB enerji arz güvenliğinin daha da kötüleşmesini önlemek için nihayet adım atmayı düşüncelerine yol açmıştır. Dolayısıyla makale, Rusya-Ukrayna savaşının Ukrayna enerji güvenliği üzerindeki etkilerinin AB enerji arz güvenliğini nasıl etkileyeceği konusu ile Ukrayna enerji güvenliğini bileşenleri, temel enerji sorunları ve Ukrayna enerji stratejisinin zorlukları ile birlikte ele almayı amaçlamaktadır.

Yöntem

Çalışmada tanımlayıcı metot kullanılmış ve birincil ve ikincil kaynaklar bağlamında analiz gerçekleştirilmiştir.

Sonuç ve Tartışma

Enerji ve enerji güvenliği, küresel sistemdeki tüm ülkelerin ekonomik ve stratejik gelişimi için en önemli konulardan biridir. Her geçen gün dünyanın farklı bir coğrafyasında yeni bir enerji kaynağı bulunsa da dünya enerji kaynaklarının hızla tükenmekte olduğu bilinmektedir. Gerek petrol ve doğalgaz gibi enerji kaynaklarının tükenmesi, gerekse yaşanan savaşlar ve petrol krizleri enerji güvenliği konusunda ciddi endişelere yol açıyor. Putin, yıllar içinde kademeli olarak Gürcistan'a karşı işgal girişimi başlatarak, Kırım'ı ilhak ederek ve son olarak Donbass'ı istikrarsızlaştırma girişimlerinin ardından Ukrayna'yı çevreleyerek revizyonist dış politika kararları almıştır. Putin'in jeopolitik gücünü arttırmak ve Avrupa pazarlarına enerji boru hatları sağlamak için Ukrayna topraklarının tamamını stratejik amaçlarla kontrol etme niyetinde olduğu bugünkü savaş ile açıkça ortaya çıkmıştır.

Ukrayna'daki savaşın uzun bir süreye yayılması muhtemeldir. Savaş, küresel ekonomi için olumsuz bir arz şoku olarak değerlendirilmektedir. Covid-19 salgını sonrasında zaten yüksek olan enflasyon, enerji krizi ve emtia fiyat artışlarıyla daha da kötüleşmiş durumdadır. Başta petrol olmak üzere enerji fiyatlarındaki artış, petrol ihraç eden ülkeler dışında herkes için olumsuzluk arz etmektedir. Ancak, ilk sırada Çin olmakla birlikte bu durumun olası kazananları da yer almaktadır. Çok kutuplu yapı gelişirken Rusya'nın bölgedeki ekonomik, askeri ve finansal güç boşluğunu Çin'in doldurması olasıdır. Rusya dışında petrol ve enerji ve hatta diğer değerli metal ve emtia ihraç eden ülkeler de bundan faydalanacaktır. Rusya'yı uluslararası sistemden izole eden ABD'nin de bu çatışma sürecinden kazançlı çıkacağı muhtemeldir.

Sonuç olarak, Rusya-Ukrayna savaşının Ukrayna enerji güvenliği ve AB'nin enerji arz güvenliği üzerinde geleceğe ilişkin olumsuz sonuçlar doğurduğunu ve doğurmaya da devam ettiğini söylemek mümkündür. Bu sebeple savunmasız

durumda olan Ukrayna'nın modern ve çok odaklı bir enerji güvenliği politikası inşa ederek enerji kaynaklarını tüm tüketiciler için sürekli erişilebilir kılmalı, açık ve rekabetçi enerji piyasaları oluşturmalı, enerji verimliliğini korumalı ve enerji sektörünün çevresel sürdürülebilirliğine özen göstermelidir.