

# Energy and Geopolitics: The Hungarian Dilemma

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## **Abstract**

Before the outbreak of the war, Russia dominated the Central and Eastern European energy sector. Before 2022 some European powers, like Germany (Nord Stream II) and Italy (South Stream – later TAP) even chose to increase the import of cheap Russian energy.<sup>1</sup> In other words the competition for cheap Russian energy was important for the states in the region. Hungary, due to its geopolitical position, adapted to the existing German-influenced order rather than attempting to change the basic infrastructure like Poland. Energy policy and security<sup>2</sup> are crucial, particularly during times of crisis such as the war between Russia and Ukraine. The Hungarian PM, Viktor Orbán, has emphasized the importance of maintaining energy stability and security in the past, as it is closely linked to a well-functioning economy.<sup>3</sup> Therefore, Budapest followed a pragmatic path. Cheap energy and manpower can boost both the employment rate and competitiveness, which means increasing foreign investment and technology transfer. However, the ongoing war, combined with pressure from both Russia and the West, sanctions, and a global energy shortage, has forced the Hungarian decision-makers to reconsider their strategy. Therefore the energy sector is key to Hungary's geopolitical thinking.

**Keywords:** Russian influence, energy security, the strategy of Connectivity, geopolitical interests, renewable energy, nuclear power, risks of the „new cold war“

## **A Short History of Hungary's energy dependence**

The historical significance of Russian influence in Central and Eastern Europe is deeply rooted and extensive. In the era of state socialism, specifically during the early 1960s, the Soviet Union, under the leadership of Nikita Khrushchev, made a strategic decision to invest heavily in the development of Siberia, an under-explored region at the time. This decision ultimately led to a significant increase in the extraction of natural gas and oil. As Europe's demand for energy continued to rise, Moscow found itself presented with an opportunity. By selling oil and gas to the West, Russia was able to earn valuable hard currency, such as USD and West German Mark. However, the construction of the necessary infrastructure was no easy task, as it required substantial resources and financial investment. Nevertheless, the Soviet leadership was determined to build multiple gas and oil pipelines, both to supply their „satellite states“ and to serve the needs of Western countries.

The Friendship and Brotherhood pipelines, known as the "Barátság" and "Testvériség" respectively, played a crucial role in providing energy for Hungary. However, the excessive amount of imported but cheap energy led to wasteful practices. The absence of technological advancements and the availability of cheap resources presented a disincentive to Budapest regarding innovation. Nevertheless, some unpredictable events during the Cold War posed challenges for Moscow's „vassals“. During the oil crises in 1973 and 1979, the Soviets opted to export more strategic resources to the West, instead of to the Warsaw Pact members, due to the rise in the oil price.<sup>4</sup> Consequently, Hungary found itself in a difficult situation. The only energy source, the Paks nuclear facility, was not exempt from energy dependence as the enriched uranium and technology originated in Moscow. This imposed limitations on the ability to reform the system in Paks, which continues to this day.<sup>5</sup>

Following the collapse of state socialism, the countries in Central and Eastern Europe were able to remove the Soviet troops, the Warsaw Pact, and the Comecon, leading to sovereignty and freedom from Moscow. However, despite these changes, the energy

infrastructure remained largely unchanged, resulting in a continued reliance on Russian gas and oil. This dependence proved problematic when Russia experienced economic difficulties, leading to higher oil prices that impacted various sectors in Hungary, including industry, transition, and inflation. The negative effects of such dependence were exemplified by the Blockade of Taxi Drivers in 1990, which demonstrated the potential for political chaos in a state highly dependent on energy imports, like Hungary.<sup>6</sup>

### **Diversification projects**

Dependence on Russian energy carries increased risk, especially when Russia itself is facing a crisis. Despite some issues with Hungary's energy system, Russian imports were generally considered reliable during times of peace and stability after 1990. However, geopolitical tensions between Russia and neighboring (post-soviet) states like Ukraine, the Baltic states, and Belarus created problems. When the "Orange Revolution" resulted in Viktor Yushchenko becoming president of Ukraine, Russia used its energy resources as a tool to assert its influence in the region<sup>7</sup>. This was made possible by the energy infrastructure established during the Cold War. As tensions continued to rise, importers began to develop plans to diversify their energy sources.

There were regional attempts to reduce reliance on Russian resources. One of the most notable initiatives was the Nabucco project, which aimed to connect the gas pipelines from Azerbaijan and Kazakhstan and transport them to Central Europe, specifically from Erzurum to Vienna. This pipeline would have passed through Bulgaria, Romania, and Hungary, making these five transit countries the primary investors. However, the project's cost was exorbitant, making it unaffordable for the Central and Eastern European states to finance on their own. Recognizing its strategic significance, the European Commission prioritized the project. The estimated cost of the project was approximately €7.9 billion, and to secure funding, the European Investment Bank, the European Bank for Reconstruction and Development, and the International Finance Corporation contributed around €4 billion.<sup>8 9</sup> The project was later withdrawn as it was

evident that the influential European players, Germany's industrial and export capabilities and the Russian gas lobby, had other plans for the future, such as establishing a direct connection via Nord Stream.

The Nabucco project would have been a boon to the post soviet region. The diversification would definitely have decreased the exposure to Russia. The Ukrainian-Russian conflicts showed the need for diversification, however, the cost was so high that interest in the project faded. Hungary supported both Nabucco and Turkish Stream to ensure its energy imports. Only the southern Turkish stream project was completed. This project, however, falls short of meeting the energy requirements of Hungary. The failure of Nabuco resulted in the status quo energy infrastructure remaining in Central Europe. However, Hungary remained interested, in the potential import of energy from Azerbaijan. Later this doctrine, of „Eastern Opening“ („Keleti nyitás“) promoted closer relations.

The absence of a collective will to implement the expensive program remained. Berlin had already made the decision to establish a pipeline that bypassed the entire post-Soviet region. Germany's regional dominance determines the Central European energy market. Berlin's strategy became increasingly apparent, as the shift away from nuclear power capacity after 2012 left its energy policy vulnerable to imports of fossil fuels. In consequence, the Russians were able to influence the European Union's most relevant economic power, Germany. Berlin imported reliable and affordable gas through the Nord Stream 1 pipeline, while Russia gained both hard currency and influence in Europe. This plan was so successful in Berlin that Gerhard Schröder and Angela Merkel planned to increase the efficiency of the Nord Stream infrastructure by doubling imports from Russia from the beginning of the mid of the 2000s. Thus, the proposal for Nord Stream II was put forward. However, this project faced much greater opposition. The central and eastern European region realized that the Germans were on the path to directly connecting with Russia and bypassing other supply chains that were potential conflict zones. Therefore those countries that were transit countries

(Slovakia, Ukraine) were definitely against the German plan. And of course not just the transit countries were opposing Germany's plan, but traditionally anti-Russian Eastern European countries (Poland, the Baltic states) also opposed Merkel's „Ostpolitik“.

Germany's decision holds significant importance for Hungary. While Hungary aligns militarily with the Anglosphere, particularly the United States, it is Germany that dominates the economic landscape of Central Europe.<sup>10</sup> Berlin's recent actions have demonstrated the possibility of changing the basic structure of the infrastructure established during the Soviet era. However, increasing energy imports from Russia has exacerbated Germany's reliance on Moscow for energy. It is also noteworthy that Germany's competitive edge has been closely tied to the availability of cheap energy sourced from Russia. Hungary's circumstances mirror this dependency, having been significantly influenced by its historical ties to Russian energy due to Soviet occupation. The lack of ports in Hungary being unable to build an LNG terminal, which worsened the energy situation compared to Germany. In contrast, after 2022, Germany mobilized its resources to develop large-scale LNG terminals to secure a stable energy supply. Nevertheless, the reliance on long-term contracts and distant imports from countries such as the United States, Qatar, and Algeria lacks the necessary flexibility and tends to be more costly. This may explain the economic challenges Germany is facing towards the end of 2024. For Hungary, this situation poses considerable difficulties; however, the existing LNG terminals provide a pathway to navigate these challenges more effectively than without such infrastructure. In the future, Hungary could leverage these terminals to establish additional connections to Croatia (Krk), Italy (Trieste), Poland (Gdynia), and other regions. Currently, from the perspective of the Hungarian government, sustaining the previously mentioned social measures, such as "Rezsicsökkentés," along with maintaining competitiveness and predictable energy imports, is likely to become increasingly challenging. This scenario underscores the intricate relationship between geopolitics and domestic affairs.

## Challenges Related to Energy Exposure

At present, Hungary's energy dependency stands at approximately 64%, surpassing the EU average.<sup>11</sup> The country faces limitations in achieving self-sufficiency due to inadequate resources. Nevertheless, the emerging renewable energy sector presents opportunities to lower dependency levels, establish a more resilient Hungarian market, and ensure stable prices for the population.<sup>12</sup> The Hungarian leadership faces two significant challenges in the near future. Firstly, they must seek out alternative supply routes for importing the necessary oil and gas. Secondly, they need to explore different technologies to reduce the consumption of gas in the civilian sector. Both of these resources are essential for the functioning of various industries, such as the chemical sector (Nitrogénművek, Richter Gedeon, MOL, etc.), as well as for households requiring heating. Ensuring an adequate and reliable supply is crucial for maintaining Hungary's competitiveness.<sup>13</sup> An appropriate alternative may involve the utilization of geothermal heating. In Hungary, numerous locations, such as Gyula, Veresegyház, Szeged, and Hajdúszoboszló, are home to such geothermal resources. The experience of these cities demonstrates that harnessing this energy source for residential heating can effectively address the issue at hand.<sup>14</sup> While this approach may not significantly enhance electricity generation, it can contribute to reducing Russian influence in the heating sector. The problem is similar to the cracking of natural gas in Hungary (Makó), it is really expensive and requires technology.

In 2020, households in the civil sector utilized nearly 52% of gas and only 18% of renewable energy for final energy consumption. Heating plays a significant role in consumption, accounting for 70%.<sup>15</sup> Ensuring citizens with stable heating prices can be quite challenging. The main issue appears to be Hungary's dependence on imports. To guarantee stable prices for citizens and industrial entities, it is essential to focus on diversification and self-sufficiency.

Hungary has the potential to become a significant gas producer, with recent research indicating that Hungarian shale gas reserves amount to 2000 billion m<sup>3</sup>.<sup>16</sup> The main

issue lies in the projected cost of extraction. Given the challenges associated with fracking shale gas, such as its complexity and environmental impact, it is unlikely to be pursued in the foreseeable future. Only a handful of countries possess the capability to extract shale gas, with the US and Canada leading the way in this regard, exporting LNG as a result. This endeavor demands substantial financial resources, robust infrastructure, and advanced technology. Presently, Hungary lacks the necessary capital and technological expertise to engage in such activities. Moreover, as a member of the EU, Hungary is subject to regulations that prohibit fracking due to its detrimental environmental effects.<sup>17</sup>

The policy of reducing overhead prices, known as "rezsicsökkentés," implemented by FIDESZ-KDNP, was highly popular. However, the insufficiency of resources posed a threat to this policy. The escalation of the Russian-Ukrainian conflict resulted in a significant increase in energy prices. Consequently, the government had to take measures to regulate the prices of processed oil products, such as petrol, while ensuring the fundamental aspects of the overhead reduction program. Unfortunately, due to the controlled prices set by the state, suppliers were reluctant to provide oil to the Hungarian market, as the state-controlled price (480 HUF/liter) was considerably lower than the market price (gasoline ~ 620 HUF/liter).<sup>18</sup> As a result, the government was unable to maintain the price cap.<sup>19</sup> Therefore it can be stated that the current Hungarian government is really keen on state intervention. It can be concluded that the present Hungarian administration is highly supportive of state intervention. In an effort to avoid a larger budget deficit, a new tax has been introduced targeting companies that generate „excess profits” during times of crisis. Currently, nearly all sectors are subject to this taxation, including oil refining (MOL), banking, commercial enterprises, and pharmaceuticals, and so on.

The main Hungarian difficulty is its reliance on natural gas as the only viable option to meet the population's consumption needs. As Russia distances itself from Europe, the Hungarian energy sector faces a significant challenge. Finding the most dependable



solution seems to be Hungary's most pressing problem. Additionally, other energy threats arise, such as the Ukrainian state-owned company NAFTOGAZ asserting that Russian gas will no longer pass through Ukraine after 2025.<sup>20</sup>

Hungary faces a significant challenge not in gas supply, but in securing a suitable oil importer. The country's reliance on Russian oil is notably high, approximately 70%, necessitating the exploration of alternative sources. Ukraine has expressed a desire to reduce the volume of trade between Russia and Europe, as evidenced by actions taken in July 2024, when Kyiv imposed sanctions on Russian oil companies that derive substantial revenue from exports. These sanctions effectively disrupted the operations of the Russian exporter Lukoil. Consequently, Hungary faced the potential risk of an oil shortage. MOL, along with its Slovak partners, devised a strategy to continue importing the necessary quantities of Russian oil. From that point forward, when oil is transported via pipelines from Russia through Ukraine, MOL will remit transit fees to Ukraine rather than to Russia. This adjustment, however, has led to an increase in the cost of imported oil due to bureaucratic complexities. The crisis presents a dual challenge: a geopolitical one, considering the risk of pipeline damage from military actions, and a technical one, as MOL must determine whether it can find alternative refining sources compatible with its existing technology. Some experts, including Tamás Pletser, suggest that MOL has the capability to import mixed oil from various regions, such as from the United States, the Middle East, and Azerbaijan, thereby ensuring a sufficient supply of oil for the Hungarian refineries.<sup>21</sup>

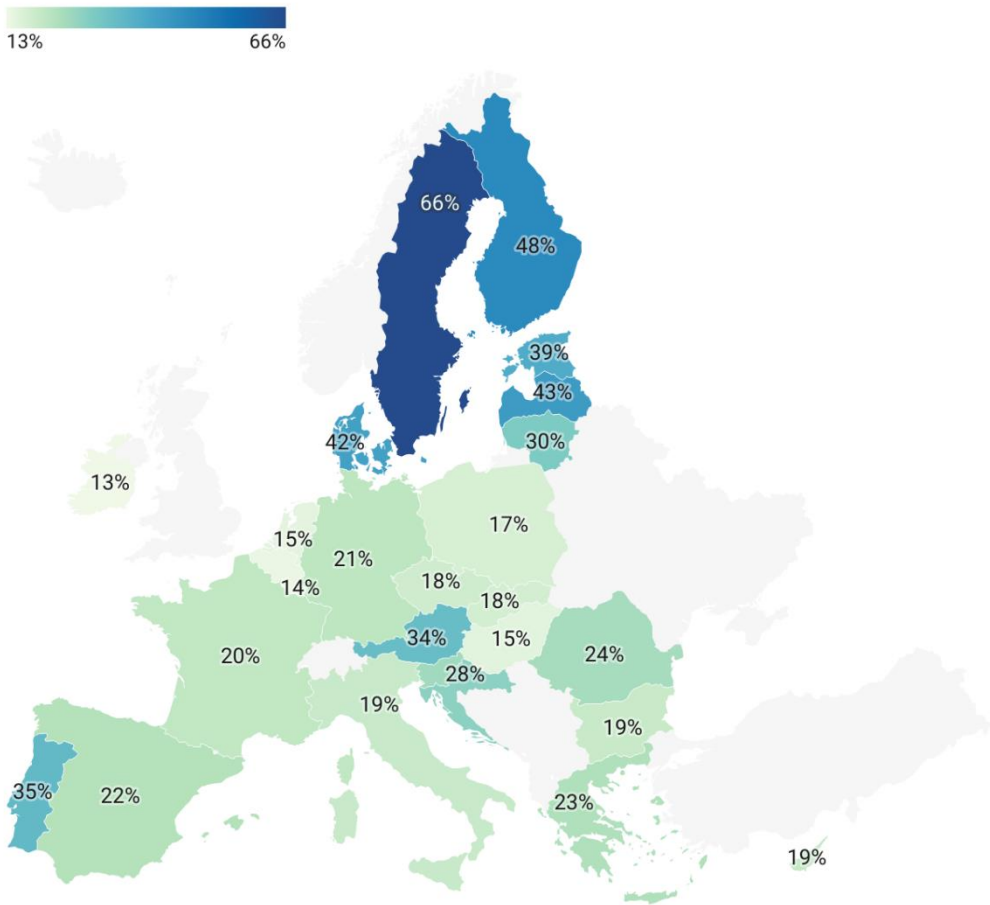
### **Energy Insecurity and Hungary's Eastern Opening**

The Russian invasion of Ukraine undermined Central Europe's energy infrastructure and exposed its vulnerability. Responding to the invasion, the EU imposed sanctions, specifically targeting oil and nuclear sources rather than gas imports. This backfired. Russia merely resorted to using gas exports as a form of economic coercion. Prior to the war in Ukraine, reliable and affordable gas imports were central to regional energy supplies. Recognizing this dilemma, the Orbán government took action at the end of

December 2022. The government restructured the administration of the energy sector, establishing the Ministry of Energy and transferring the Paks project to the Ministry of Foreign Affairs and Trade.<sup>22</sup>

The primary objective was to achieve a level of energy security. Reliance on imports, including foreign fossil fuels and physical energy imports (such as electric wire), emphasized the necessity of enhancing the country's energy sector independence. The focus is on diversification and the utilization of renewable energy sources. However, Hungary faces numerous challenges in attaining energy resilience. The scarcity of suitable resources such as coal, gas, oil, and uranium, coupled with its geopolitical position, lacking of connection to major LNG trade routes, underscores the significance of prioritizing renewable energy production.<sup>23</sup>

### Share of renewable sources in EU energy consumption (in %)



Map: Bence Szabó • Source: European Parliament • Created with Datawrapper

The production of renewable electricity currently stands at approximately 13.7% (3,800 MW)<sup>25</sup>. The objective of the Energy ministry is to achieve 29% of the total electricity production (12,000 MW). The plan relies heavily on solar panels. However, addressing the issue of energy shortage and the need to store electricity for efficient utilization necessitates the advancement of battery technology<sup>26</sup>, along with other alternatives such as Pumped-storage hydroelectricity (although infrastructure poses challenges).

The relevance of foreign direct investment (FDI) and technology to Hungary has become increasingly evident in the Eastern Opening strategy. After the 2008 global financial crisis, the new FIDESZ-KDNP government announced the "Eastern Opening" strategy in 2010. Expanding into new global markets became a crucial objective. The government adopted unorthodox methods to address not only the immediate financial problems but also to modernize the outdated structure of the Hungarian economy. These measures included rejecting IMF loans lowering the central bank's interest rates, and converting foreign currency loans into Hungarian Forint.<sup>27,28</sup>

After 2010, the government merged economic and foreign policy in the Ministry of Foreign Affairs and Trade. In a speech in 2014 at Tusnádfürdő, Hungarian Prime Minister Viktor Orbán shed light on the underlying principles of this strategy. The prime minister emphasized the importance of understanding and acknowledging illiberal political systems. Orbán referenced countries such as Singapore, China, India, Russia, and Turkey to illustrate his point.<sup>29</sup>

The Eastern Opening narrative was not only embraced in Budapest, but it also received similar responses from other Western powers after 2008. Hungary has reaped significant benefits from its look East strategy. It has led to a rise in exports to Asian markets<sup>30</sup>, the transfer of advanced technology<sup>30</sup> from countries like South Korea, China, and Japan, and more diversified foreign direct investment (FDI). Germany remains Hungary's primary trading partner, with a majority of companies in Hungary being German-based industrial firms. However since 2020, South Korea has emerged as a major investor in Hungary, and the significance of Far Eastern technology extends

beyond investment. Establishing strong supply chains between German and Eurasian companies can attract business. Consequently, Budapest aims to maintain cooperation between East and West.<sup>31</sup> While this approach has brought advantages to Hungary, such as increased employment rates, export potential, access to advanced technology, and a higher FDI rate<sup>32</sup>, it also presents challenges. Hungary finds itself in a complex and difficult geopolitical situation, as the clash between the "West and the East" complicates the implementation of this political view.

East Asian investment could contribute to the development of a more sustainable battery technology. The focus of Chinese company, Sunwoda and South Korean company Samsung on battery production for electric cars highlights the Asian market's dominance in this sector compared with European battery production. Additionally, battery technology can also address electricity shortages by complementing the energy generated by solar panels. Hungary seems to increase its energy production by solar panels, so the import of East-Asian technology is beneficial in different field as well.

This program also faces obstacles. Acting as a connective bridge between West and East can yield significant benefits, but the current geopolitical shifts also present challenges. Escalating tensions between the US and China has complicated Hungary's connective strategy. Moreover, the stance of the European Union also plays a role. If major European countries such as Germany, France, and Italy align with the US's geopolitical perspective on China, that could create difficulties for Hungary's eastern opening project.<sup>33</sup>

However, it is not only the geopolitical challenges that can make this strategy challenging but also popular anxiety. Residents challenged the establishment of battery factories due to environmental concerns. From the government's perspective, the construction of battery factories is a vital component of the new national strategy<sup>34</sup>, aiming to boost employment rates, enhance Hungary's competitiveness, and contribute to the realization of its "green plan".<sup>35</sup>

## Nuclear dilemma

The Paks nuclear power plant presents another problem. It commenced operations in 1982.<sup>36</sup> By 2022, the combined output of the four reactors had reached an impressive 15,000 GW/H, accounting for 44% of the country's total electricity production.<sup>37</sup> Without Paks, the country would be much more reliant on imports. The Paks II program, aimed at further expanding productivity, and is expected to sustain the nuclear power plant's performance. The Hungarian government approved this program in 2009, and subsequently, the MVM company devised its development strategy.<sup>38</sup> MVM decided collaboration with Russian nuclear company Rosatom was optimal at the time, as it allowed for the utilization of the same technology, fuel, and logistics that were already established for Paks I, constructed in the 1980s. It is worth noting that Hungary was not the only country to seek Rosatom's assistance in enhancing reactor capabilities. The Finns also embarked on a similar collaboration but terminated the project following the 2022 aggression in Ukraine.<sup>39</sup>

By contrast, the Hungarian reactors still utilize Russian technology and fuel. Given the Russian aggression in Ukraine, continuing cooperation poses difficulties for Hungary and its relationship with the US and the EU. This situation presents a dilemma for a number of Central and Eastern European countries, including Finland, Czechia, Slovakia, and Bulgaria, as well as Hungary. At present, the EU is not inclined to make a decision to discontinue Russian fuel supply.<sup>40</sup> Nevertheless, these countries are actively seeking alternative suppliers. János Péter Horváth, the CEO of the MVM Paks Nuclear Power Plant, argues that the Paks program could successfully diversify its imported fuel. It appears that there are no technical obstacles in using other fuel types that are compatible with the pressurized water reactor. Horváth mentioned alternatives, such as the French Framatom or the American Westinghouse.<sup>41</sup> The Slovaks<sup>42</sup> and Czechs<sup>43</sup> are also exploring the importation of other fuels in their quest to minimize Russian influence. Of course, it is still questioned whether this new approach is beneficial. Some

say that it is not possible to import a technology that is not fully compatible with the Russian one that is, water-water energetic reactors.

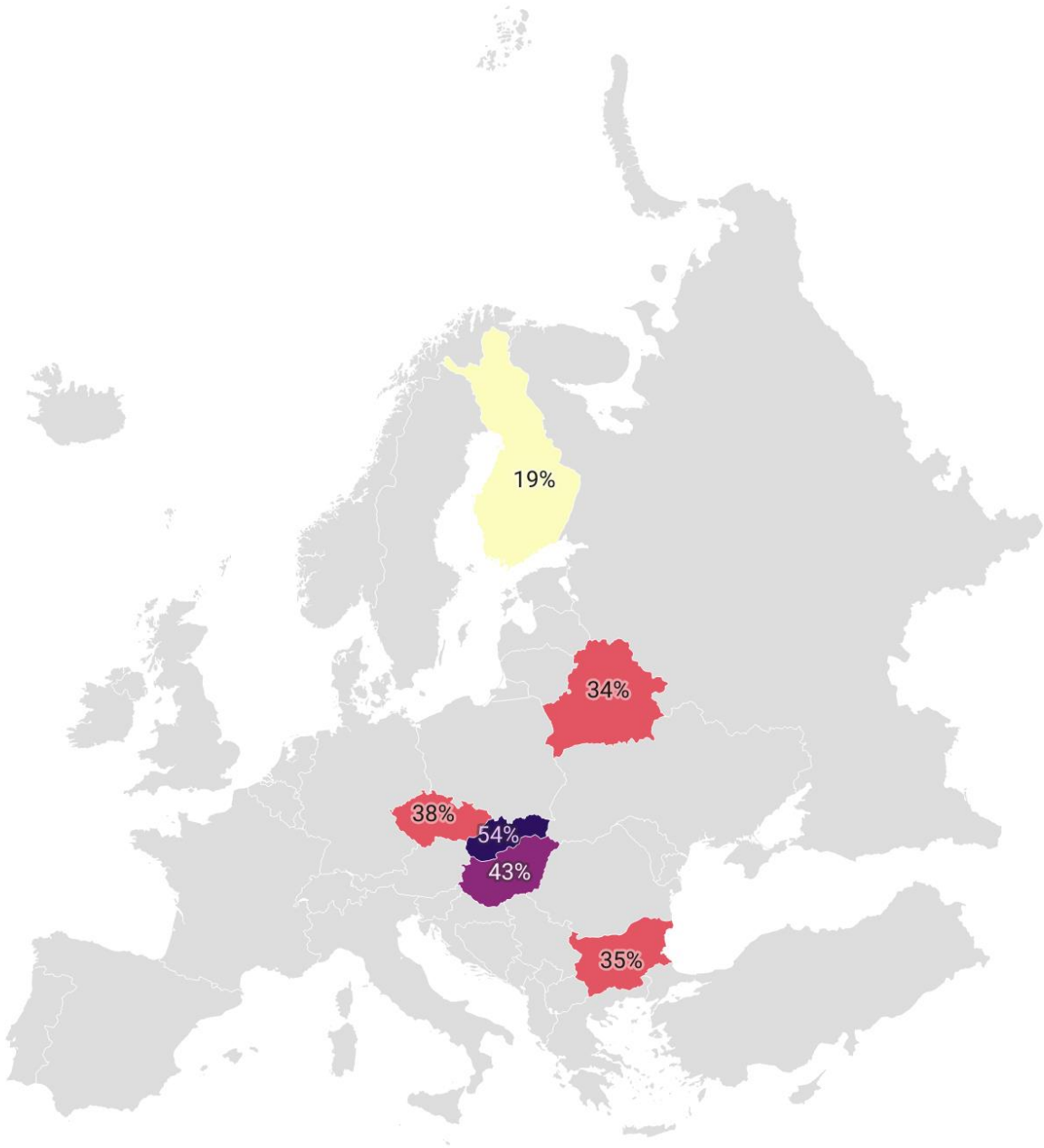
The utilization of nuclear power has emerged as a significant energy source, holding great importance. In order for Europe to achieve self-sufficiency, it is imperative to increase investments in nuclear power plants. The attainment of the green plan, which is a shared objective of both the European Union and its member states (France, Hungary, Czechia), heavily relies on the nuclear solution. However, the continent lacks the necessary uranium resources, necessitating the exploration of suitable sources abroad. The Hungarian Eastern opening strategy seeks to establish stronger ties with Kazakhstan, a region in Central Asia that possesses a substantial amount of uranium.<sup>44</sup> By securing access to such a valuable resource, Hungary's energy security stands to gain numerous advantages. Recognizing the significance of Central Asia extends beyond Hungarian foreign policy, as major European powers like Germany and France also acknowledge its importance.<sup>45</sup>

The Western power's relations faced several challenges due to the Russian-built Paks. Among these difficulties, the German-Hungarian relationship was particularly affected. Péter Szijjártó revealed that the German government decided to hinder cooperation with Siemens in Paks. Annalena Baerbock (foreign minister of Germany) attempted to play a significant role in reducing Russian influence within the EU, but this action had a negative impact on the rate of German industrial exports.<sup>46</sup> As a result of these strained relations, János Lázár, the minister responsible for public transport, announced the termination of any further collaboration between the Hungarian government and Siemens.<sup>47</sup> Although Siemens had been a key player in importing locomotives, it will now be replaced by the Swiss-made Stadler. There are further plans for replacement of the older locomotives (Ganz-MÁVAG) with a Spanish company, named Talgo.<sup>48</sup> The prohibition imposed by Germany resulted in the Hungarian nuclear sector becoming open to France. Consequently, it is probable that Framatome, a company that initially

invested in Paks, will fill the void left by the Germans and Americans. This development could significantly benefit the French economy.<sup>49 50</sup>

### Nuclear electricity production of the total electricity production, utilizing Russian imported nuclear fuel/products (in %)

< 26%   26%–33%   33%–40%   40%–47%   ≥ 47%



Map: Szabó Bence • Source: IAEA • Created with Datawrapper





## Conclusion

Hungary has attempted to develop a comprehensive strategy in order to establish a more secure and dependable energy supply chain. The country's lack of access to seas poses challenges due to its geopolitical limitations. Nevertheless, the new policy known as Eastern opening has presented unique opportunities. Strong ties with Azerbaijan and Kazakhstan highlight the potential for diversification. However, the insufficient capital and technology required to construct pipelines from these nations have made achieving this goal challenging. The European Union did not endorse any major diversification initiatives. While major EU countries like Germany opted to increase imports from Russia, some EU members preferred to rely on the United States (LNG) and Norway for the same, but at higher prices.

The issue of energy vulnerability was highlighted by the Russian aggression. Hungary's energy infrastructure is largely a legacy of the Soviet era. While the political landscape of Central and Eastern Europe has evolved, the energy infrastructure has remained unchanged. Certain Hungarian policies, such as cost reduction and enhancing competitiveness, have heavily relied on secure and affordable energy sources, which have been predominantly influenced by Russian imports. However, the geopolitical tensions between major powers have posed challenges to Hungary's strategic initiative known as Connectivity. Bridging the gap between Western (primarily German) and Eastern foreign direct investments could yield numerous benefits. Incorporating advanced technology (such as energy storage) and fostering a more competitive business environment through the increased production of electric vehicles (e.g. BMW, Audi, Mercedes) are key aspects that could enhance energy efficiency.

The Hungarian government is facing numerous challenges on both the international and domestic fronts. The establishment of battery factories has raised concerns due to the pollution they generate, with local residents opposing the construction of such facilities nearby. The upcoming local municipal election in June 2024 could further complicate matters by potentially strengthening the position of local residents. In

addition, Hungary's current domestic political terrain also causes difficulties for the strategy. The leaders of the TISZA party are also trying to gain an advantage from the distrust towards environmentally polluting battery factories.<sup>52</sup> The domain of domestic affairs holds significant importance, as instances of domestic instability and political polarization can hinder connectivity strategies. As previously noted, internal matters are intrinsically linked to the formulation of foreign policy decisions. A stable political environment is essential for developing a coherent, predictable and effective strategy.

Geopolitically, Germany's green foreign minister is opposed to the cooperative relations between Hungary and Russia. Within the Visegrad Group (V4), the Czechs and Poles are leaning towards reducing cooperation with Moscow. The looming possibility of a new cold war with China casts a shadow over the effectiveness of Chinese foreign direct investments in Hungary. However, as an independent nation, Hungary has made the decision to proceed with both the „Eastern Opening“ and „Connectivity“ projects. It is not just Hungary that is committed to further cooperation with the countries in these regions. Germany, too, has expressed interest in the abundant resources of Central Asia and the potential for technology transfer with China to enhance the manufacturing of German cars.

There are indeed challenges facing the Hungarian strategy regarding Connectivity. One significant concern is the potential escalation of the ongoing "new cold war" between the United States and China. Consider the impacts if this cold war were to intensify further (direct conflict–war); potential blockades could severely hinder trade efficiency between Europe and East Asia (strait of Malacca), including Japan and South Korea, which are integral parts of the "Global West". Furthermore, these Eastern states are integral parts of FDI into Hungary with examples including Suzuki and Samsung, which is crucial for the current economic system.

Another pressing issue is the continued escalation of the conflict in Ukraine. This situation has led Budapest to favor the pursuit of peace or more likely a truce. Additionally, the centralization of decision-making within the European Union,

particularly in foreign affairs, poses another challenge. If Hungary lost its veto power, its influence within EU politics could be significantly diminished. Consequently, Hungary is actively seeking to strengthen ties with Western conservatives, particularly the Republican Party in the United States. Moreover, it is crucial for Hungary to collect more allies within the EU (Patriots fraction) to secure additional support in the Council of the European Union.

This implemented strategy is not a new one; it has been utilized not only by Hungary but also by Germany since the 1970s, particularly through Willy Brandt's Ostpolitik. Given Hungary's integration within the German economic sphere, there is an interest in creating connections between German corporations such as Mercedes, Audi, BMW, Siemens, and Bosch, and Eastern technological advancements and cheap resources. Observing the parallels with the German approach, it is evident that Hungarian and German leaders share numerous strategic objectives concerning the "East." A pertinent political illustration of this alignment is the fact that both Viktor Orbán and Olaf Scholz opposed the introduction of tariffs on Chinese electric vehicles. Thus, Hungary's interests extend beyond ideological considerations; geopolitical factors are equally significant. Consequently, Budapest is well-positioned to make alliances in Central Europe, due to the heritage of a common geopolitical system.

## Bibliography

- **András, M. Orbán:** *Nélkülözhetetlenek az orosz fűtőelemek.* Magyar Nemzet. 12.03.2023. ACCESS: <https://magyarnemzet.hu/gazdasag/2023/03/nelkulozhetetlenek-az-orosz-futoelemek> [05.11.2024.]
- **Ashutosh, Pandey:** *Why EU sanctions don't include Russian nuclear industry.* Deutsche Welle. 07.19.2023. ACCESS: <https://www.dw.com/en/russia-nuclear-industry-eu/a-66275352> [05.11.2024.]
- **Attila, Farkas:** *Energia és biztonság kapcsolata. Aktuális és jövőbeli energiabiztonsági kihívások.* 139-165. o. In: Biztonságpolitikai Corvinák. Antall József Tudásközpont. 2019.
- **Balázs, Orbán:** *A magyar stratégiai gondolkodás egyszeregye.* MCC. Budapest. 2020.
- **Balázs, Orbán:** *Connectivity: A Hungarian globalisation strategy.* European Council on Foreign Relations 06.03.2023. ACCESS: <https://ecfr.eu/article/connectivity-a-hungarian-globalisation-strategy/> [05.11.2024.]
- **Balázs, Rádi:** *Sejtettük, hogy nagy kincs van Magyarország alatt, de azt nem, hogy ekkora.* Index. 01.04.2024. ACCESS: <https://index.hu/gazdasag/2024/04/01/magyarorszag-geotermikus-energia-megujulo-viz-foldho-gaz-oroszorszag/>. [06.11.2024.]
- **BBC:** *Why are batteries crucial for renewable energy?* ACCESS: <https://www.bbc.com/storyworks/future/ngk-innovators-of-tomorrow/why-are-batteries-crucial-for-renewable-energy> [05.11.2024.]
- **Central European Times:** *Hungarian consortium's purchase of Talgo blocked by Spain on security grounds.* 30.08.2024. ACCESS:

<https://centraleuropeantimes.com/2024/08/hungarian-consortiums-purchase-of-talgo-blocked-by-spain-on-security-grounds/> [05.11.2024.]

- **Clara, Dassonville - Thies, Siemen:** *Mapping Nuclear Energy, The state of play in Europe, Northern America and Central Asia.* Friedrich Ebert Stiftung. 2022. ACCESS: [https://justclimate.fes.de/fileadmin/user\\_upload/Nuclear\\_Series/Mapping\\_nuclear\\_energy\\_-\\_FES\\_Just\\_Climate.pdf](https://justclimate.fes.de/fileadmin/user_upload/Nuclear_Series/Mapping_nuclear_energy_-_FES_Just_Climate.pdf) [06.11.2024.]
- **CNN:** *Finnish group ditches Russian-built nuclear plant plan.* 03.05.2022. ACCESS: <https://edition.cnn.com/2022/05/03/business/finnish-group-ditch-russian-built-nuclear-plant-intl/index.html> [05.11.2024.]
- **Daily News Hungary:** *France to take over Germany's role in Paks II control system supply.* 07.06.2023. ACCESS: <https://dailynewshungary.com/france-to-take-over-germanys-role-in-paks-ii-control-system-supply/> [05.11.2024.]
- **Emese, Ráti:** *Szijjártó Péter: Más országok érdekeit szolgálják, akik az akkumulátorgyárak ellen hergelnek.* Index. 06.02.2023. ACCESS: <https://index.hu/belfold/2023/02/06/szijjarto-peter-kulgazdasagi-es-kulugyminiszterium-akkumulator-gyar-hergeles/> [05.11.2024.]
- **Erik, Braun:** *Helyzetkép a Keleti Nyitás Stratégia megvalósításáról: külkereskedelem (I. rész).* 28.12.2022. ACCESS: <https://www.oeconomus.hu/irasok/helyzetkep-a-keleti-nyitas-strategia-megvalositasarol-kulkereskedelem-i-resz/> [05.11.2024.]
- **European Parliament:** *How the EU is boosting renewable energy.* 29.11.2022. ACCESS: <https://www.europarl.europa.eu/topics/en/article/20221128STO58001/how-the-eu-is-boosting-renewable-energy> [06.11.2024.]
- **Ferenc, Gazdag:** *Három évtized magyar külpolitikája (1989-2018).* Ludovika Egyetemi Kiadó. 2021.

- **Flórián, Hecker:** *Lázár János meglepő bejelentése: a magyar kormány szakít az egyik legnagyobb német céggel.* Világgazdaság. 13.05.2023. ACCESS: <https://www.vg.hu/vilaggazdasag-magyar-gazdasag/2023/05/lazar-janos-meglepo-bejelentese-a-magyar-kormany-szakit-az-egyik-legnagyobb-nemet-ceggel> [05.11.2024.]
- **Framatome:** *Framatome signs Memorandum of Understanding with Hungary to extend long-term cooperation in nuclear power.* 12.09.2023. ACCESS: <https://www.framatome.com/medias/framatome-signs-memorandum-of-understanding-with-hungary-to-extend-long-term-cooperation-in-nuclear-power/> [05.11.2024.]
- **Gábor, Dobai:** *A Makói-árok.* VGF&HKL. 2015/6. ACCESS: <https://www.vgfszaklap.hu/lapszamok/2015/junius/3760-a-makoi-arok> [05.11.2024.]
- **Gergely, Borsi – István, Berzenay:** *Új korszak kezdődött: mennyit kell fizetni a benzinért mától? Index.* 07.12.2022. <https://index.hu/gazdasag/2022/12/07/benzinkut-benzin-uzemanyag-dizel-gazolaj-arsapka-kormany-rendelet-orban-viktor/> [05.11.2024.]
- **Gergely, Takács:** *Az energiabiztonság elmélete.* Pécsi Tudományegyetem Interdiszciplináris Doktori Iskola. 58-73. pp. ACCESS: [https://acta.bibl.u-szeged.hu/56867/1/kek\\_42\\_058-073.pdf](https://acta.bibl.u-szeged.hu/56867/1/kek_42_058-073.pdf) [05.11.2024.]
- **Gergő, Gáspár:** *Szijártó Péter: Az akkumulátorgyárakat ellenzők nemzetgazdasági érdekek ellen küzdenek.* Index. 04.02.2023. ACCESS: <https://index.hu/gazdasag/2023/02/04/tiltakozasok-akkumulatorgyar-szijarto-peter-baloldal-nemet-autogyarak-munkahelyek/> [05.11.2024.]
- **Gergő, S. Szabó:** *„Pletser Tamás: politikai és technikai szempontból is rizikós a Mol számára az orosz olaj”.* Infostart. 13.09.2024. ACCESS:

<https://infostart.hu/gazdasag/2024/09/13/pletser-tamas-politikai-es-technikai-szemponbol-is-rizikos-a-mol-szamara-az-orosz-olaj> [05.11.2024.]

- **Géza, Tóth– Viktor, Jáger– Zsolt, Kovalszky– Pál, Bóday– Dénes, Ádám– Kincses Áron:** *A magyarországi háztartások energiafogyasztásának jellemzői az orosz–ukrán háború árnyékában.* In: Statisztikai Szemle. 2023. 124-128. pp.
- **Hungary Today:** *Fracking is Extremely Polluting, Climate Website Warns.* 07.02.2022. ACCESS: <https://hungarytoday.hu/fracking-is-extremely-polluting-climate-website-warns/> [05.11.2024.]
- **Index:** *Véget ért a gázháború.* 04.01.2006. Access: <https://index.hu/gazdasag/magyar/gazh060104/> [05.11.2024.]
- **Infostart:** *Zöldenergia: Új napelem és szélenergia szabályok.* Lantos Csaba, Inforádió, Aréna . Interview with Csaba Lantos (Ministry of Energy) 22.11.2023. ACCESS: <https://www.youtube.com/watch?v=eGGbsoEEjUA&t=1179s> [05.11.2024.]
- **János, Haász:** *Orbán a Telexnek: IMF-hitel nem lesz, nekünk ne mondják meg, hogy járjunk a fülünkön.* Telex. 21.12. 2022. ACCESS: <https://telex.hu/belfold/2022/12/21/orban-a-telexnek-imf-hitel-nem-lesz-nekunk-ne-mondjak-meg-hogy-jarjunk-a-fulunkon> [06.11.2024]
- **Krisztina, Than:** *Hungarian government scraps price cap on fuels as shortage worsens.* Reuters. 06.12.2022. ACCESS: <https://www.reuters.com/business/energy/hungary-government-scraps-price-cap-fuels-2022-12-06/> [05.11.2024.]
- **KSH** *energiamérleg.* ACCESS: [https://www.ksh.hu/stadat\\_files/ene/hu/ene0002.html](https://www.ksh.hu/stadat_files/ene/hu/ene0002.html) [05.11.2024.]
- **KSH:** *A háztartások végső energiafelhasználása felhasználási célok szerint.* [https://www.ksh.hu/stadat\\_files/ene/hu/ene0007.html](https://www.ksh.hu/stadat_files/ene/hu/ene0007.html) [05.11.2024.]

- **KSH:** *Bruttó villamosenergia-termelés.* ACCESS: [https://www.ksh.hu/stadat\\_files/ene/hu/ene0009.html](https://www.ksh.hu/stadat_files/ene/hu/ene0009.html) [05.11.2024.]
- **KSH:** *Energiagazdálkodás* ACCESS: <https://www.ksh.hu/energiagazdalkodas> [05.11.2024.]
- **Lilla, B. Horváth:** *Újfajta üzemanyagot is kóstolhat a paksi atomerőmű.* Világgazdaság. 14.12.2023. ACCESS: <https://www.vg.hu/energia-vgplus/2023/12/ujfajta-uzemanyagot-is-kostolhat-a-paksi-atomeromu> [05.11.2024.]
- **Magyar Nemzet:** *Orbán Viktor Kínában: Blokkosodás és elzárkózás helyett együttműködés* . 16.10.2023. ACCESS: <https://magyarnemzet.hu/kulfold/2023/10/orban-viktor-blokkosodas-es-elzarkozas-helyett-egyuttmukodes> [05.11.2024.]
- **Magyarország Kormánya:** *Magyarország Nemzeti Energia- és Klímaterve 2023. évben felülvizsgált változat.* 2023. ACCESS: <https://cdn.kormany.hu/uploads/document/5/54/54b/54b7fc0579a1a285f81d183931bfaa7e4588b80e.pdf> [05.11.2024.]
- **Magyarország Nemzeti Energia- és Klímaterve.** 2023. ACCESS: <https://cdn.kormany.hu/uploads/document/5/54/54b/54b7fc0579a1a285f81d183931bfaa7e4588b80e.pdf> [05.11.2024.]
- **Máté, Béres:** *Az akkumulátor-oroszlán barlangjához is elment Magyar Péter.* Magyar Narancs. 19.05.2024. ACCESS: <https://magyarnarancs.hu/belpol/az-akkumulator-oroszlan-barlangjához-is-elment-magyar-peter-268078> [05.11.2024.]
- **Michał, Kowalczyk:** *Hungary's unorthodox economic policies.* *Observer Finansowy.* 18.05.2017. ACCESS: <https://www.obserwatorfinansowy.pl/in-english/macro-economics/hungarys-unorthodox-economic-policies/> [05.11.2024.]



- **MVM:** *Paks I meghosszabbítása.* ACCESS: <https://atomeromu.mvm.hu/Tudastar/20Ev> [05.11.2024.]
- **Nabucco:** *Modification of feeder line concept* ACCESS: [https://web.archive.org/web/20110714150717/http://www.nabucco-pipeline.com/portal/page/portal/en/press/NewsText?p\\_item\\_id=8E79E5BF557DCC2DE040A8C0010178CA](https://web.archive.org/web/20110714150717/http://www.nabucco-pipeline.com/portal/page/portal/en/press/NewsText?p_item_id=8E79E5BF557DCC2DE040A8C0010178CA) [05.11.2024.]
- **NAFTO GAZ:** *Ukraine plans to end Russian gas transit contract in 2024 – interview for Deutsche Welle* 24.10.2023. ACCESS: <https://www.naftogaz.com/en/interviews/ukraine-will-not-extend-gas-transit-contract-with-russia-interview-deutsche-welle> [05.11.2024.]
- **Nóra, Szekér:** *Crisis and ascent - The days of the 1990 Taxi Blockade.* Hungarian Review. 05.05.2016 [ACCESS: https://hungarianreview.com/article/20160512\\_crisis\\_and\\_ascent\\_the\\_days\\_of\\_the\\_1990\\_taxi\\_blockade/](https://hungarianreview.com/article/20160512_crisis_and_ascent_the_days_of_the_1990_taxi_blockade/) [05.11.2024.]
- **Orsolya, Kuli:** *Szijjártó Péter: Felháborító, hogy a német kormány blokkolja a paksi bővítést.* Index. 27.01.2023. ACCESS: <https://index.hu/gazdasag/2023/01/27/paks-2-atomeromu-beruhazas-nemetszag-siemens/> [05.11.2024.]
- **Paks2:** *A projekt története.* ACCESS: <https://www.paks2.hu/web/guest/a-projekt-t%C3%B6rt%C3%A9nete> [05.11.2024.]
- **President of the Republic of Kazakhstan:** *The Head of State meets with Federal President of Germany Frank-Walter Steinmeier.* 29.09.2023. ACCESS: <https://www.akorda.kz/en/2-29823> [05.11.2024.]
- **Réka, Szemerényi:** *Szénhidrogén- és biztonságpolitikai kölcsönhatások Európa és a KGST kapcsolataiban. 1945–1990.* PPKE BTK Történelemtudományi Doktori Intézet. 2007. ACCESS: <https://mek.oszk.hu/08400/08479/08479.pdf> [05.11.2024.]

- **Sergei, Ermolaev:** *The Formation and Evolution of the Soviet Union's Oil and Gas Dependence.* Carnegiedownment. 29.03.2017. ACCESS: <https://carnegiedownment.org/2017/03/29/formation-and-evolution-of-soviet-union-s-oil-and-gas-dependence-pub-68443> [05.11.2024.]
- **Szabolcs, Hornyák:** *Amerikai cégtől vesz nukleáris üzemanyagokat Szlovákia.* Világgazdaság. 25.08.2023. ACCESS: <https://www.vg.hu/nemzetkozi-gazdasag/2023/08/amerikai-cegtol-vesz-nuklearis-uzemanyagokat-szlovakia> [05.11.2024.]
- **Tamás, Árki:** *Brüsszeli szankciók: Kínának is nekimenne az EU.* Magyar Nemzet. 08.05.2023. ACCESS: <https://magyarnemzet.hu/kulfold/2023/05/brusszeli-szankciok-kinanak-is-nekimenne-az-eu> [05.11.2024.]
- **Tamás, Gerőcs – András, Pinkasz:** *A KGST a világrendszerben, Egy félperifériás kísérlet gazdaságtörténeti elemzése.* In Eszmélet. 2017.
- **Viktor Orbán's speech** – *napirend előtti felszólalás.* 25.09.2023. ACCESS: <https://miniszterelnok.hu/orban-viktor-napirend-elotti-felszolalasa-2023-09-25/> [05.11.2024.]
- **Viktor, Orbán:** *A munkaalapú állam korszaka következik* (beszéd, Tusványos 2014). 28.07.2014. ACCESS: <https://mandiner.hu/velemeney/2014/07/orban-viktor-a-munkaalapu-allam-korszaka-kovetkezik-beszed-tusvanyos-2014> [05.11.2024.]
- **Viktória, Németh:** *A visegrádi országok energiabiztonsága.* In Oeconomus. 16.01.2022. ACCESS: <https://www.oeconomus.hu/irasok/a-visegradi-orzagok-energiabiztonsaga/> [05.11.2024.]
- **Vladimir, Socor:** *Massive Funding In Prospect For Nabucco Pipeline Construction.* Jamestown. 14.09.2010. <https://jamestown.org/program/massive-funding-in-prospect-for-nabucco-pipeline-construction/> [05.11.2024.]

- **Westinghouse Electric Company:** *Westinghouse Seeks to Expand 30-Year Partnership with Czech Republic with Proven AP1000 Reactors.* 31.10.2023. ACCESS: <https://info.westinghousenuclear.com/news/westinghouse-seeks-to-expand-30-year-partnership-with-czech-republic-with-proven-ap1000-reactors> [05.11.2024.]
- **World Nuclear Association:** *Uranium and Nuclear Power in Kazakhstan.* 25.10.2024. ACCESS: <https://world-nuclear.org/information-library/country-profiles/countries-g-n/kazakhstan.aspx> [05.11.2024.]



## Endnotes

- <sup>1</sup> It is important to note, that only the Nord Stream Project was completed. The South Stream was disapproved. Instead of building up a new pipeline from Russia, the connection between the Azeri output and the Italian needs.
- <sup>2</sup> Gergely, Takács: Az energiabiztonság elmélete. Pécsi Tudományegyetem Interdiszciplináris Doktori Iskola. 58-73. pp. ACCESS: [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://acta.bibl.u-szeged.hu/56867/1/kek\\_42\\_058-073.pdf](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://acta.bibl.u-szeged.hu/56867/1/kek_42_058-073.pdf)
- <sup>3</sup> Viktor Orbán's speech ACCESS: <https://miniszterelnok.hu/orban-viktor-napirend-elotti-felszolalasa-2023-09-25/>
- <sup>4</sup> Sergei Ermolaev: The Formation and Evolution of the Soviet Union's Oil and Gas Dependence. Carnegiedowment. 29.03.2017. <https://carnegiedowment.org/2017/03/29/formation-and-evolution-of-soviet-union-s-oil-and-gas-dependence-pub-68443>
- <sup>5</sup> András M. Orbán: Nélkülözhetetlenek az orosz fűtőelemek. Magyar Nemzet. 12.03.2023 ACCESS: <https://magyarnemzet.hu/gazdasag/2023/03/nelkulozhetetlenek-az-orosz-futoelemek>
- <sup>6</sup> Nóra Székér: Crisis and ascent - The days of the 1990 Taxi Blockade. Hungarian Review. 05.05.2016 ACCESS: [https://hungarianreview.com/article/20160512\\_crisis\\_and\\_ascent\\_the\\_days\\_of\\_the\\_1990\\_taxi\\_blockade/](https://hungarianreview.com/article/20160512_crisis_and_ascent_the_days_of_the_1990_taxi_blockade/)
- <sup>7</sup> Index: Véget ért a gázháború. 04.01.2006. <https://index.hu/gazdasag/magyar/gazh060104/>
- <sup>8</sup> Vladimir Socor: Massive Funding In Prospect For Nabucco Pipeline Construction. Jamestown. 14.09.2010. <https://jamestown.org/program/massive-funding-in-prospect-for-nabucco-pipeline-construction/>
- <sup>9</sup> Nabucco: Modification of feeder line concept ACCESS: [https://web.archive.org/web/20110714150717/http://www.nabucco-pipeline.com/portal/page/portal/en/press/NewsText?p\\_item\\_id=8E79E5BF557DCC2DE040A8C0010178CA](https://web.archive.org/web/20110714150717/http://www.nabucco-pipeline.com/portal/page/portal/en/press/NewsText?p_item_id=8E79E5BF557DCC2DE040A8C0010178CA)
- <sup>10</sup> With Trump's victory this can be changed a little bit. Perhaps American companies can also help to the Hungarian market to become more specific in the Central European region. Sometimes personal relations can be really beneficial, especially in lobbying. Such relations can help to invite Tesla, 3M etc...
- <sup>11</sup> KSH energiamérleg. ACCESS: [https://www.ksh.hu/stadat\\_files/ene/hu/ene0002.html](https://www.ksh.hu/stadat_files/ene/hu/ene0002.html)
- <sup>12</sup> KSH energiamérleg. ACCESS: [https://www.ksh.hu/stadat\\_files/ene/hu/ene0002.html](https://www.ksh.hu/stadat_files/ene/hu/ene0002.html)
- <sup>13</sup> Tóth Géza – Jáger Viktor – Kovalszky Zsolt – Bóday Pál – Ádám Dénes – Kincses Áron 2023: 124-128. pp.
- <sup>14</sup> Balázs, Rádi: Sejtettük, hogy nagy kincs van Magyarország alatt, de azt nem, hogy ekkora. Index. 01.04.2024. ACCESS: <https://index.hu/gazdasag/2024/04/01/magyarorszag-geotermikus-energia-megujulo-viz-foldho-gaz-orszorszag/>.
- <sup>15</sup> KSH: A háztartások végső energiafelhasználása felhasználási célok szerint. [https://www.ksh.hu/stadat\\_files/ene/hu/ene0007.html](https://www.ksh.hu/stadat_files/ene/hu/ene0007.html)
- <sup>16</sup> Gábor, Dobai: A Makói-árok. VGF&HKL. 2015/6. ACCESS: <https://www.vgfszaklap.hu/lapszamok/2015/junius/3760-a-makoi-arok>
- <sup>17</sup> Hungary Today: Fracking is Extremely Polluting, Climate Website Warns. 07.02.2022. ACCESS: <https://hungarytoday.hu/fracking-is-extremely-polluting-climate-website-warns/>
- <sup>18</sup> Gergely, Borsi – István, Berzenay: Új korszak kezdődött: mennyit kell fizetni a benzinért mátol? Index. 07.12.2022. <https://index.hu/gazdasag/2022/12/07/benzinkut-benzin-uzemanyag-dizel-gazolaj-arsapka-kormany-rendelet-orban-viktor/>
- <sup>19</sup> Krisztina, Than: Hungarian government scraps price cap on fuels as shortage worsens. Reuters. 06.12.2022. ACCESS: <https://www.reuters.com/business/energy/hungary-government-scraps-price-cap-fuels-2022-12-06/>
- <sup>20</sup> NAFTO GAZ: Ukraine plans to end Russian gas transit contract in 2024 – interview for Deutsche Welle 24.10.2023. ACCESS: <https://www.naftogaz.com/en/interviews/ukraine-will-not-extend-gas-transit-contract-with-russia-interview-deutsche-welle>
- <sup>21</sup> Gergő, S. Szabó: Pletser Tamás: politikai és technikai szempontból is rizikós a Mol számára az orosz olaj. Infostart. 13.09.2024. ACCESS: <https://infostart.hu/gazdasag/2024/09/13/pletser-tamas-politikai-es-technikai-szemponbol-is-rizikos-a-mol-szamara-az-orosz-olaj>
- <sup>22</sup> Infostart: Zöldenergia: Új napelem és szélerőmű szabályok. Lantos Csaba, Inforádió, Aréna . Interview with Csaba Lantos (Ministry of Energy) 22.11.2023. ACCESS: <https://www.youtube.com/watch?v=eGGbsoEEjUA&t=1179s>
- <sup>23</sup> Magyarország Nemzeti Energia- és Klímaterve. 2023. ACCESS: <https://cdn.kormany.hu/uploads/document/5/54/54b/54b7fc0579a1a285f81d183931bfaa7e4588b80e.pdf>
- <sup>24</sup> European Parliament: How the EU is boosting renewable energy. 29.11.2022. ACCESS: <https://www.europarl.europa.eu/topics/en/article/20221128STO58001/how-the-eu-is-boosting-renewable-energy>

- 
- <sup>25</sup> KSH: Energiagazdálkodás <https://www.ksh.hu/energiagazdalkodas>
- <sup>26</sup> BBC: Why are batteries crucial for renewable energy? ACCESS: <https://www.bbc.com/storyworks/future/ngk-innovators-of-tomorrow/why-are-batteries-crucial-for-renewable-energy>
- <sup>27</sup> Michał Kowalczyk: Hungary's unorthodox economic policies. *Observator Finansowy*. 18.05.2017. ACCESS: <https://www.obserwatorfinansowy.pl/in-english/macroeconomics/hungarys-unorthodox-economic-policies/>
- <sup>28</sup> János, Haász: Orbán a Telexnek: IMF-hitel nem lesz, nekünk ne mondják meg, hogy járjunk a fülünkön. *Telex*. 21.12. 2022. ACCESS: <https://telex.hu/belfold/2022/12/21/orban-a-telexnek-imf-hitel-nem-lesz-nekunk-ne-mondjak-meg-hogy-jarjunk-a-fulunkon>
- <sup>29</sup> Viktor, Orbán: A munkaalapú állam korszaka következik (beszéd, Tusványos 2014). 28.07.2014. ACCESS: <https://mandiner.hu/velemeney/2014/07/orban-viktor-a-munkaalapu-allam-korszaka-kovetkezik-beszed-tusvanyos-2014>
- <sup>30</sup> Erik, Braun: Helyzetkép a Keleti Nyitás Stratégia megvalósításáról: külkereskedelem (I. rész). 28.12.2022. ACCESS: <https://www.oeconomus.hu/irasok/helyzetkep-a-keleti-nyitas-strategia-megvalositasarol-kulkereskedelem-i-resz/>
- <sup>31</sup> Magyar Nemzet: Orbán Viktor Kínában: Blokkosodás és elzárkózás helyett együttműködés . 16.10.2023. ACCESS: <https://magyarnemzet.hu/kulfold/2023/10/orban-viktor-blokkosodas-es-elzarkozas-helyett-egyuttmukodes>
- <sup>32</sup> In 2009 – 16 billion HUF, in 2018 – 24 billion HUF.
- <sup>33</sup> Tamás, Árki: Brüsszeli szankciók: Kínának is nekimenne az EU. *Magyar Nemzet*. 08.05.2023. ACCESS: <https://magyarnemzet.hu/kulfold/2023/05/brusszeli-szankciok-kinanak-is-nekimenne-az-eu>
- <sup>34</sup> Gergő, Gáspár: Szijjártó Péter: Az akkumulátorgyárakat ellenzők nemzetgazdasági érdekek ellen küzdenek. *Index*. 04.02.2023. ACCESS: <https://index.hu/gazdasag/2023/02/04/tiltakozasok-akkumulatorgyar-szijjarto-peter-baloldal-nemet-autogyarak-munkahelyek/>
- <sup>35</sup> Emese, Ráti: Szijjártó Péter: Más országok érdekeit szolgálják, akik az akkumulátorgyárak ellen hergelnek. *Index*. 06.02.2023. ACCESS: <https://index.hu/belfold/2023/02/06/szijjarto-peter-kulgazdasagi-es-kulugyminiszterium-akkumulator-gyar-hergeles/>
- <sup>36</sup> MVM: Paks I meghosszabbítása. ACCESS: <https://atomeromu.mvm.hu/Tudastar/20Ev>
- <sup>37</sup> KSH: Bruttó villamosenergia-termelés. ACCESS: [https://www.ksh.hu/stadat\\_files/ene/hu/ene0009.html](https://www.ksh.hu/stadat_files/ene/hu/ene0009.html)
- <sup>38</sup> Paks2: A projekt története. ACCESS: <https://www.paks2.hu/web/guest/a-projekt-t%C3%B6rt%C3%A9nete>
- <sup>39</sup> CNN: Finnish group ditches Russian-built nuclear plant plan. 03.05.2022. ACCESS: <https://edition.cnn.com/2022/05/03/business/finnish-group-ditch-russian-built-nuclear-plant-intl/index.html>
- <sup>40</sup> Ashutosh Pandey: Why EU sanctions don't include Russian nuclear industry. *Deutsche Welle*. 07.19.2023. ACCESS: <https://www.dw.com/en/russia-nuclear-industry-eu/a-66275352>
- <sup>41</sup> Lilla B. Horváth: Újfajta üzemanyagot is kóstolhat a paksi atomerőmű. *Világgazdaság*. 14.12.2023. ACCESS: <https://www.vg.hu/energia-vgplus/2023/12/ujfajta-uzemanyagot-is-kostolhat-a-paksi-atomeromu>
- <sup>42</sup> Szabolcs, Hornyák: Amerikai cégtől vesz nukleáris üzemanyagokat Szlovákia. *Világgazdaság*. 25.08.2023. ACCESS: <https://www.vg.hu/nemzetkozi-gazdasag/2023/08/amerikai-cegtol-vesz-nuklearis-uzemanyagokat-szlovakia>
- <sup>43</sup> Westinghouse Electric Company: Westinghouse Seeks to Expand 30-Year Partnership with Czech Republic with Proven AP1000 Reactors. 31.10.2023. ACCESS: <https://info.westinghousenuclear.com/news/westinghouse-seeks-to-expand-30-year-partnership-with-czech-republic-with-proven-ap1000-reactors>
- <sup>44</sup> World Nuclear Association: Uranium and Nuclear Power in Kazakhstan. 25.10.2024. ACCESS: <https://world-nuclear.org/information-library/country-profiles/countries-g-n/kazakhstan.aspx>
- <sup>45</sup> President of the Republic of Kazakhstan: The Head of State meets with Federal President of Germany Frank-Walter Steinmeier. 29.09.2023. ACCESS: <https://www.akorda.kz/en/2-29823>
- <sup>46</sup> Orsolya, Kuli: Szijjártó Péter: Felhőborító, hogy a német kormány blokkolja a paksi bővítést. *Index*. 27.01.2023. ACCESS: <https://index.hu/gazdasag/2023/01/27/paks-2-atomeromu-beruhazas-nemetszag-siemens/>
- <sup>47</sup> Flórián, Hecker: Lázár János meglepő bejelentése: a magyar kormány szakít az egyik legnagyobb német céggel. *Világgazdaság*. 13.05.2023. ACCESS: <https://www.vg.hu/vilaggazdasag-magyar-gazdasag/2023/05/lazar-janos-meglepo-bejelentese-a-magyar-kormany-szakit-az-egyik-legnagyobb-nemet-ceggel>
- <sup>48</sup> Central European Times: Hungarian consortium's purchase of Talgo blocked by Spain on security grounds. 30.08.2024. ACCESS: <https://centraleuropeantimes.com/2024/08/hungarian-consortiums-purchase-of-talgo-blocked-by-spain-on-security-grounds/>

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<sup>49</sup> Daily News Hungary: France to take over Germany's role in Paks II control system supply. 07.06.2023. <https://dailynewshungary.com/france-to-take-over-germanys-role-in-paks-ii-control-system-supply/>

<sup>50</sup> Framatome: Framatome signs Memorandum of Understanding with Hungary to extend long-term cooperation in nuclear power. 12.09.2023. ACCESS: <https://www.framatome.com/medias/framatome-signs-memorandum-of-understanding-with-hungary-to-extend-long-term-cooperation-in-nuclear-power/>

<sup>51</sup> Clara, Dassonville - Thies, Siemen: Mapping Nuclear Energy, The state of play in Europe, Northern America and Central Asia. Friedrich Ebert Stiftung. ACCESS: [https://justclimate.fes.de/fileadmin/user\\_upload/Nuclear\\_Series/Mapping\\_nuclear\\_energy\\_-\\_FES\\_Just\\_Climate.pdf](https://justclimate.fes.de/fileadmin/user_upload/Nuclear_Series/Mapping_nuclear_energy_-_FES_Just_Climate.pdf)

<sup>52</sup> Máté, Béres: Az akkumulátor-oroszlán barlangjához is elment Magyar Péter. Magyar Narancs. 19.05.2024. ACCESS: <https://magyarnarancs.hu/belpol/az-akkumulator-oroszlán-barlangjához-is-elment-magyar-peter-268078>