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Energy Security | Hungary-Poland Relations | Economic Security

Problem

For further economic success Poland and Hungary must secure long-term energy security and successfully manage the energy transition in a way that is consistent with both: climate goals and security options. Countries must avoid new external dependencies, especially replacing Russian energy dependence that brings in strategic corruption, with Chinese green-tech that undercuts growth prospects.

Key facts

* Poland & Hungary face dual dependency risk: exiting Russian energy while avoiding new Chinese over-reliance.

* Both oppose EU ETS2, fear heating-cost backlash, and push nuclear and batteries.

* Hungary's national documents update signals de-Russification but may be merely paperwork for the EU.

Foresight

Unless Hungary and Poland cooperate in the energy security domain by building up an interdependent energy network system and joining forces in influencing the EU green transition agenda, their respective competitiveness will be in jeopardy.

Budapest and Warsaw Energy Transition Towards More Political Autonomy

EXECUTIVE SUMMARY

- Poland and Hungary increasingly recognise energy as a core component of national security and strategic autonomy. Both seek to reduce exposure to external pressure by strengthening diversified supply routes, expanding regional interconnections, and developing domestic production. However, Budapest is deepening Russian energy dependency seeing it as an opportunity for political patronage and geostrategic gamble.
- Since 2008 Central Europe's energy networks have become far more resilient, with new pipelines, LNG terminals, and electricity links providing redundancy and limiting reliance on any single supplier. This regional integration supports both economic stability and crisis preparedness.
- Poland focuses on broad diversification of offshore wind, LNG expansion, nuclear development and enhanced cross-border flows, aimed at reducing strategic vulnerability.
- Hungary prioritises affordability and supply continuity through nuclear investment, solar expansion and flexible routing, while maintaining pragmatic relationships with existing suppliers.
- Across the region, the core challenge is building energy systems that remain secure under geopolitical strain while managing the emerging risks of new clean-energy supply chains.

About

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Project

EuropeFuture.Forum is an invitation-only format for strategic foresight discussion on European policy and political initiatives.

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NATO and EU Perspectives on Energy as a Security Asset

- From a NATO perspective, secure and resilient energy supplies are essential for military readiness and operational continuity. Armed forces depend heavily on reliable fuel and electricity, meaning any disruption can directly weaken defence capabilities. NATO therefore prioritises the protection of critical energy infrastructure and the development of resilient logistics systems such as military-relevant pipeline networks.¹ For countries like Poland, located on the Alliance's eastern flank, expanding secure fuel-supply infrastructure is particularly important for sustaining NATO forces in a crisis. Hungary, though less exposed geographically, still relies on uninterrupted energy flows to meet NATO requirements and ensure its forces remain operationally credible.
- In the EU context, energy security is tied to the broader goal of achieving open strategic autonomy, which entails Europe's ability to act without being constrained by external energy suppliers. Reducing dependence on politically unreliable actors is therefore both an economic and a geopolitical necessity. The EU supports diversification of supply, investment in renewables, and the creation of secure supply chains for critical raw materials. However, the transition to clean energy introduces new dependencies, especially on non-EU states for key materials used in batteries and renewable technologies.²
- For Poland and Hungary, a selective approach that focuses directly on the security risks of weaponised energy dependencies makes the picture clearer. Both states have experienced how external suppliers, most notably Russia, can use energy as a tool of political pressure, which directly threatens NATO's goals of resilience and operational continuity. At the same time, EU ambitions to build strategic autonomy in the energy field are increasingly challenged by new technologies

¹ <https://www.nato.int/en/what-we-do/wider-activities/energy-security>

² <https://www.clingendael.org/publication/tale-two-dependencies-european-strategic-autonomy-field-energy>

and supply-chain dependencies on China, especially for critical raw materials and clean-energy technologies. This creates a new layer of vulnerability, as reducing fossil-fuel dependence strengthens their position within the EU and reduces exposure to coercion from traditional suppliers, it simultaneously risks creating a different form of strategic leverage held by China. For both Poland and Hungary, understanding these shifting dependencies through the lens of weaponisation provides a clear framework for analysing their security exposure within both NATO's energy-security agenda and the EU's pursuit of strategic autonomy.

Central European Energy Networks

- From a regional security standpoint, energy networks in Central and Eastern Europe represent a bulwark against external vulnerabilities, evolving from post-2009 gas crisis dependencies to diversified, resilient systems. The region now operates on an integrated energy infrastructure system based on the north-south architecture. Poland and Hungary are embedded in this system through a network of interconnectors, LNG terminals, and cross-border pipelines that collectively reduce exposure to single-route vulnerabilities. Poland's connections to Czechia and Slovakia, together with access to the Świnoujście LNG Terminal and Croatian Krk LNG terminals, underpin the northern tier of this network, while Hungary's reinforced ties to Slovakia, Romania and Croatia help stabilise the southern tier.
- Poland's Baltic Pipe provides direct Norwegian gas to the north, while the Świnoujście LNG terminal and the Gdańsk FSRU, currently under construction and planned to regasify up to 6.1 billion cubic metres annually, will expand import options and allow rapid rerouting to regional partners once operational.³ Czechia and Slovakia act as transit hubs, enabling reverse flows toward Poland or southward toward Hungary. The 2023 Hungary-Slovakia interconnector strengthened southern redundancy, complemented by Hungary's links to Romania and Croatia's Krk LNG terminal, which

³ <https://www.gaz-system.pl/pl/terminal-fsru/opis-inwestycji.html>

collectively reduced reliance on a single supplier or route. These connections form part of a broader North-South Gas Corridor, while the Vertical Gas Corridor from Greece through Bulgaria and Romania, currently nearing completion, will further enhance reverse-flow capacity into Hungary. Strategic gas storage complements these flows, with Poland holding about 3.5 billion cubic metres in a few large facilities and Hungary more than 6 billion cubic metres across multiple sites.⁴ Now they are integrated into coordinated EU frameworks to allow cross-border access in times of disruption.

- Electricity networks in the region follow a separate but complementary integration logic. On 9 February 2025, the electricity grids of Lithuania, Latvia, and Estonia were fully synchronised with the Continental European network via Poland. This landmark project, supported by over €1.2 billion in EU funding under the Connecting Europe Facility, included the Harmony Link interconnector between Poland and Lithuania⁵. Poland's upgrades with Slovakia and Austria, alongside Hungary's connections to Slovakia and Austria, enhance regional balancing, grid stability, and military-relevant resilience under EU security-of-supply rules.
- These combined gas and electricity infrastructures transform the region from isolated "energy islands" into a bidirectional network. Poland benefits from upgraded interconnectors with Czechia and Slovakia, enabling 5.5 billion cubic metres/year of bidirectional flows that tie into the Baltic Energy Market Interconnection Plan. Hungary's southern routes, strengthened through the Hungary-Slovakia interconnector and connections to Romania and Croatia, are further supported by the expanding Vertical Gas Corridor. Together, these pipelines, LNG terminals, interconnectors, storage assets, and electricity links provide the flexibility to respond to potential supply shocks, reduce dependence

⁴ <https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=operational-data/operational-data/operational-data/>
<https://www.gaztarolo.hu/kapacitasok/>
<https://www.mfgt.hu/Tevekenysegek/Gaztarolok>

⁵ https://energy.ec.europa.eu/news/commission-baltic-states-and-poland-commit-accelerated-baltic-grid-synchronisation-continental-2023-12-19_en

on single suppliers, and allow both Poland and Hungary to act as stabilising nodes within Central Europe.

National Energy Transition Status and Strategic Objectives

- At the beginning of 2025, Polish Prime Minister Donald Tusk announced the Baltica 2 programme, which involves the construction of the largest wind farm in the Baltic Sea, with a planned capacity of 1.5 GW. The project, developed in partnership with Denmark, is considered a strategic initiative aimed at strengthening Poland's energy security and delivering lower-cost power for households and industry. However, not all of the government's new energy initiatives have been universally accepted, as some face political sensitivities. This was illustrated by President Karol Nawrocki's veto of the so-called "windmill bill". Nevertheless, the Prime Minister reaffirmed that, despite the presidential veto, the government would continue to support the development of renewable energy sources.⁶
- Hungary published its revised National Energy and Climate Plan (NECP) in October 2024, after receiving feedback from the European Commission. The plan aims for a 50% reduction in greenhouse gas emissions by 2030 compared to 1990 and limits final energy consumption to 740 PJ. Hungary aims for 30% renewable energy in gross final consumption, with solar power as the primary driver and significant expansion of storage and geothermal capacity.⁷ The plan's central objective is energy sovereignty, as it seeks to reduce import dependence, strengthen grid reliability, and reach 60% electricity interconnection with neighbouring countries by 2030. The new measures outlined in the NECP are expected to bring about 1.4 billion euros in annual improvements, primarily through short-term savings.⁸

⁶ https://www.pap.pl/en/news/govt-has-ways-counter-presidential-veto-windmill-bill-tusk?utm_source

⁷ https://commission.europa.eu/publications/hungary-final-updated-necp-2021-2030-submitted-2024_en

⁸ <https://ceenergynews.com/climate/hungary-increases-renewables-target-to-30-in-updated-necp/>

- However, Hungary lacks a comprehensive definition of energy security. Public and political discourse focus almost exclusively on continuity of supply, while other dimensions, affordability, diversification, system resilience, and environmental or climate risks, remain largely absent. This narrow view is reflected in strategic documents, including the NECP, which carry limited weight and are treated as symbolic exercises rather than operational tools.
- For most citizens, energy security does not connect to climate policy. Climate change is acknowledged, but mitigation is seen as marginal for a small emitter; adaptation feels more relevant. At the same time, household energy costs amount to nearly 30% of disposable income, giving policymakers strong incentives to prioritise affordability over structural reform.
- Although Hungary could benefit a lot from solar energy, its rapid solar growth was driven by political priorities and favored business interests, and proceeded without adequate system-balancing measures. Wind power was politically constrained, and no significant complementary capacity, such as flexible gas, storage, or grid support, was added. This has left the electricity system exposed to reliability risks. Large solar output peaks occur without corresponding balancing resources, resulting in an unbalanced and potentially fragile renewable energy mix. If political will would allow it, Hungary could rely a lot more on solar energy, which already accounts for 24.8% of the country's electricity generation in 2024, up from less than 0.1% in 2010.⁹

Strategic Dilemmas: Russian Dependency, Political Vulnerabilities and Dual Transition

- Prime Minister Tusk has repeatedly framed energy as a matter of national and European security, emphasising that Europe must end its dependence on Russian energy. *The era of fear and uncertainty toward Russia must come to an end. If Europe is united, then Russia is a dwarf in*

⁹ <https://ourworldindata.org/grapher/share-electricity-solar?tab=chart&country=~HUN>

*comparison to Europe – technologically, financially, and economically.*¹⁰ He has also underscored his opposition to relying on Russian supplies during the war, arguing that, with Russia as the main aggressor, *it would be a grave sin to expect the Polish energy sector to be based on supplies from Russia,*¹¹ reaffirming Poland's commitment to European solidarity.

- Despite ambitious measures for diversification in the NECP, Hungary remains politically committed to Russian gas and oil, even though energy diversification is financially and technically feasible. Although Hungary has a long-term gas supply agreement with Russia valid until 2036, Hungary signed a long-term natural gas purchase contract with Shell in September 2025.¹² According to experts, the Adria pipeline could serve both the Hungarian and Slovakian markets; and in June 2025, the Hungarian oil company MOL signed an agreement with Azerbaijan's state oil company SOCAR to jointly explore and develop the Shamakhi-Gobustan onshore region, with MOL planned as operator holding 65%.¹³ Yet, by mid-2025, 92% of Hungary's oil imports originate from Russia, a sharp increase from 61% in 2021.¹⁴
- The mounting threat of sanctions from the US pushed the Hungarian government toward greater cooperation with American partners. Prime Minister Viktor Orbán secured a one-year postponement of sanctions on Lukoil in a deal with President Donald Trump, but in return, Hungary agreed to purchase US nuclear fuel, adopt American spent-fuel storage technology for the Russian-built Paks plant, and expand cooperation on small modular reactors.¹⁵

¹⁰ https://www.gov.pl/web/premier/epoka-strachu-i-niepewnosci-wobec-rosji-musi-sie-skonczyc?utm_source

¹¹ <https://euromaidanpress.com/2025/06/30/polish-pm-tusk-counting-on-russian-energy-during-war-is-grave-sin/>

¹² <https://kormany.hu/hirek/magyarorszag-hosszu-tavu-foldgazvasarlasi-szerzodesert-irt-ala-a-shell-lel>

¹³

<https://molgroup.info/en/investor-relations/investor-news/mol-group-and-socar-agreed-on-key-terms-for-an-onshore-exploration-opportunity-in-azerbaijan>

¹⁴ <https://telex.hu/g7/kozelet/2025/09/01/orosz-olajimport-mol-normeston-profit-svajc-kozvetito>

¹⁵

<https://www.reuters.com/business/energy/hungary-buy-us-nuclear-fuel-technology-store-spent-fuel-foreign-minister-says-2025-11-07/>

- However, EU sanctions seem less threatening for the government, as Minister of Foreign Affairs Péter Szijjártó has announced legal actions against the EU if a ban on Russian energy imports comes into effect. He added that the base for his case is that disguising sanctions as trade measures violates EU rules and threatens national energy security.¹⁶
- Hungary has traditionally addressed energy affordability by keeping prices low rather than reducing consumption. Under Fidesz, low household energy costs have been explicitly used as a political tool. With elections approaching, energy policy has become highly politicized. Any proposals to reform price caps, reduce reliance on Russian energy, or change subsidies are likely to be criticized and weaponized by pro-government media. Advisers recommend the opposition to avoid public positions on energy policy until after the elections.

Future Directions and Ambitions for Energy Resilience

- Energy resilience has become a core pillar of strategic independence for both Poland and Hungary. The key objective is to build energy systems that cannot be weaponised or used as instruments of foreign pressure, while keeping costs low enough to protect industry from deindustrialisation and households from political instability. This requires a deliberate mix of diversified supply routes, domestically controlled dispatchable generation, large-scale flexibility resources, and strengthened transmission networks, alongside the explicit recognition that pipelines, power plants and electricity grids must be treated as critical infrastructure on par with traditional defence assets.
- Poland's approach to energy resilience is shaped by the strategic objective of reducing reliance on suppliers whose leverage could affect national security. Its policy emphasises diversification of sources and routes, including the development of domestic nuclear power,

¹⁶ <https://kyivindependent.com/hungary-to-sue-eu-over-ban-on-russian-gas/>

the deployment of Baltic offshore wind, expanded LNG terminals, direct pipeline supplies from Norway, and new interconnections with regional neighbours. Successive governments have maintained this trajectory, aiming for a substantial share of installed capacity from zero-emission sources by 2040, while gradually reducing coal's role to support a just transition and maintain economic stability.

- In contrast, Hungary emphasises resilience through ensuring physical continuity and price stability rather than restricting supplies from any specific country. Its energy strategy focuses on redundancy and flexibility: expanding solar capacity toward 12 GW supported by storage, developing the Paks II nuclear plant to place a significant portion of electricity production under domestic control, and maintaining a pragmatic gas portfolio that combines cost-effective procurement with additional southern and western transit routes to limit exposure to any single supply channel. Hungary treats stable household tariffs and competitive industrial prices as strategic objectives, recognising that reliable energy costs underpin economic and social stability.
- Victor Orban's energy policy also suggests that Hungary is not currently prepared to give up cheap Russian gas, despite the EU's commitment to phase out such imports by the beginning of 2028¹⁷. During Orbán's late-November meeting with Vladimir Putin, one of the key topics reportedly discussed was securing future gas supplies for Hungary. This indicates that Budapest may pursue an energy line at odds with the EU's strategic direction. It also weakens the potential for closer cooperation with Poland, which, through its LNG terminals and network of pipelines and interconnectors, including with Slovakia, could otherwise offer Hungary viable alternative sources of gas.
- Many energy experts predict that Russian energy will eventually return to Europe, though at much lower

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<https://www.consilium.europa.eu/en/press/press-releases/2025/10/20/council-agrees-its-position-on-rules-to-phase-out-russian-gas-imports-under-repowerEU/>

shares (10% rather than 40%). Globalisation and interdependence historically improved security, but widespread sanctions disrupt this but alternatives are limited. This transition would require new institutions, industrial capacity, and systematic planning.

- All in all, both Poland and Hungary need to achieve energy transition through grid upgrades. Without sufficient infrastructure, regional bottlenecks will block market integration and weaken competitiveness and resilience. In addition, the energy-efficiency programme should be at the forefront of energy transition, since this is one of the most cost-effective ways to reduce vulnerabilities and support broader decarbonisation.
- Lastly, both countries should echo clear public narratives that counter disinformation and political manipulation. False claims, such as blaming energy-price spikes on the transition (a message echoed by Vladimir Putin), obscure the reality that faster renewable deployment is one of the best long-term tools for reducing price volatility.
- Policymakers must recognize that independent institutions, academia, media, business, and civil society all play key roles in promoting the energy-transition. They also must recognise that climate and energy issues are often dismissed in conservative expert circles, limiting needed expertise.
- Claims that replacing Russian gas with US LNG merely swaps one dependency for another are misleading. The LNG market is competitive and flexible, making it fundamentally different from pipeline-based dependence.
- Concerns about shifting from Russian energy to Chinese clean-tech dependence are similarly overstated. China dominates solar and wind manufacturing, but this creates a one-off equipment dependency rather than a continuous fuel supply risk. Once installed, renewable assets operate for 15-20 years and displace gas- and

coal-based generation, making the exposure far less strategic.

Bios:

Karolina Choina is the Executive Assistant at Visegrad Insight – Res Publica Foundation. She is currently pursuing a Law degree and holds an MA in International Relations from the University of Warsaw. During the Polish Presidency of the Council of the European Union, she served as a Liaison Officer, while her previous experience includes working at a translation agency. Her academic and professional interests are centred on issues pertaining to EU law.

Natalia Kurpiewska is the Event & Community Manager at Visegrad Insight. She completed her Master's degree in International Relations at the University of Warsaw, where she defended a thesis on Ukraine's energy security in its relations with Russia. Previously, she served as deputy editor-in-chief of the quarterly magazine Youth on Politics (Młodzi o Polityce) and worked as a journalist for money.pl by Wirtualna Polska. Her research interests focus on the challenges of Europe's energy transition and energy security, particularly in the context of the continent's move away from Russian energy supplies.

Wojciech Przybylski is a policy influencer, leading strategic foresight on EU affairs to improve the democratic security of Poland in Europe. He organises the Europe Future Forum as the Editor of Visegrad Insight and the President of Res Publica Foundation. An advisory board member at LSE IDEAS Ratiu Forum, European Forum of New Ideas. A guest lecturer at the Foreign Service Institute for the U.S. Government, Warsaw University and CEU Democracy Institute. He co-authored, among others, a book 'Understanding Central Europe', (Routledge 2017), and 'On the Edge. Poland' (Culturescapes 2019), 'Let's Agree on Poland' (Oxford University Press, 2025) and was widely published in the international press.

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