

**EU Energy Independence from Russia: Possibility or Illusion?
The Case of the Nord Stream 2 Pipeline**

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Abstract

The EU's energy security has emerged as a critical geopolitical concern, particularly following Russia's invasion of Ukraine, which highlighted the need to diversify suppliers and strengthen energy autonomy. Despite initiatives to expand renewable energy capacity and imports of liquefied natural gas (LNG), the prospect of full independence from external suppliers remains unrealistic. The experience of the Nord Stream 2 pipeline exemplifies the strategic contradictions inherent in EU policy, where efforts to mitigate dependency often conflict with entrenched political and economic interests. While complete energy autonomy remains debatable, the EU's strategy should prioritise practical measures that reconcile resilience, supply diversification, and the effective management of geopolitical vulnerabilities.

Introduction

Until early 2022, Russia was the EU's primary energy supplier, with energy cooperation forming a key pillar of their bilateral relations and shaping European energy policy.¹ The Russian invasion of Ukraine disrupted this interdependence, revealing the strategic risks of relying on an unpredictable, revisionist power.² The conflict evolved into a "mega-crisis" with profound cross-sectoral repercussions, energy security being its most immediate and consequential dimension.³ Moscow's weaponization of energy demonstrated that energy security is no longer just an economic issue, but a core geopolitical one.⁴ As former EU High

¹ Tichý, L. and Dubský, Z., 2024. The EU energy security relations with Russia until the Ukraine war. *Energy Strategy Reviews*, 52, 101313, available on [here](#), accessed 02/11/2025.

² Zhang, Q., Chen, R., Ma, S. & Liang, A., 2024. Nord Stream 2, geopolitical conflicts and energy security: Evidence from EU regions. *Energy*, 313, 133836, available on [here](#), accessed 02/11/2025.

³ Karatrantos, T., 2024. *Seeking Security in Times of Crisis: The Misunderstood Right and the New Social Contract*. In E. Kotsyfou (Ed.), *Thessaloniki: Epikentro*.

⁴ *ibid* 2.

Representative Josep Borrell stated, the Ukraine crisis is “the most serious challenge of the post-Cold War period for Europe”.⁵

In this new geopolitical landscape, the EU is rapidly reducing its reliance on Russian fossil fuels, redefining its energy security, and accelerating the transition to renewable and diverse energy sources.⁶ The conflict has served as a wake-up call, exposing profound deep systemic vulnerabilities and prompting policy adaptation.⁷ The Nord Stream 2 pipeline, among the most geopolitically contentious energy projects of recent decades, epitomizes the internal strategic contradictions within the EU's energy policy architecture.⁸

This paper examines whether the EU can achieve genuine energy autonomy by ending its reliance on Russian fossil fuels. The analysis addresses three key areas: the theoretical frameworks of EU energy security, the Nord Stream 2 case study, and whether current policies represent true independence or merely shift dependencies to other suppliers.

Methodology

This paper adopts a narrative literature review to analyze existing research and synthesize key findings related to the topic.

Chapter One

1. Theoretical Approaches to EU Energy Security

EU energy security analysis is shaped by three key approaches: the geopolitical perspective, the securitization approach, and the realist logic of diversification. These interconnected perspectives are essential for understanding the Union's strategic energy decisions.⁹

⁵ European External Action Service (EEAS) (2022). *Tensions rising at our eastern borders: unity remains our strength*. [online] EEAS, available on [here](#), accessed 02/11/2025.

⁶ Council of the European Union, [n.d.]. *-Where does the EU's gas come from?* [online], available on [here](#), accessed 04/11/2025.

⁷ European Institute of International Relations (EIIR) (2023). *Europe's energy security after the Russia-Ukraine war: A call for pragmatic action*. [online] EIIR, available on [here](#), accessed 04/11/2025.

⁸ de Jong, M. & Van de Graaf, T. (2020) ‘Lost in Regulation: Nord Stream 2 and the Limits of the European Commission’s Geo-Economic Power’, *Journal of European Integration*, 42(4), pp. 495–510, available on [here](#), accessed 04/11/2025.

⁹ *ibid* 1.

1.1 Geopolitical Perspective

From a realist international relations standpoint, this approach views energy as a tool of power within competitive interdependencies.¹⁰ It positions Russia, as the EU's main gas supplier, as a strategic adversary, thereby making energy independence as a core political goal for ensuring external security. The *European Green Deal* advances this by promoting a sustainable energy transition to reduce reliance on Russian fuels.¹¹

The erosion of trust creates a security dilemma, wherein energy dependence becomes a weaponizable vulnerability, resulting in zero-sum competition where one actor's gain is perceived as the other's loss. EU energy policy reflects this shift, by embedding European values through antitrust actions against Gazprom, creating a single energy market, and establishing a common strategy. Consequently, energy resilience has become a fundamental pillar of EU strategic autonomy.¹²

1.2 Securitization Approach

Drawing on the Copenhagen School, the securitization approach treats the EU's energy dependence on Russia as a threat constructed through political discourse and institutional interventions. Energy policy is treated as an immediate priority, leading to diversification, emergency measures, and accelerated infrastructure development. The EU has positioned itself as the agent responsible for securitizing its energy relationship with Russia. Core tenets of this theoretical application include: (a) highlighting the EU's vulnerability, (b) condemning Russia as an unreliable partner, and (c) raising concerns about the potential future weaponization of energy.

The Nord Stream 2 pipeline concretizes these concerns by circumventing Ukraine, undermining its economy and geopolitical relevance, thereby consolidating Russian influence.¹³

¹⁰ *ibid* 1.

¹¹ European Commission, 2019. *The European Green Deal*, COM(2019) 640 final. European Commission, Brussels, available on [here](#), accessed 04/11/2025.

¹² *ibid* 1.

¹³ *ibid* 1.

1.3 Realist Logic of Diversification

The third approach adopts a technocratic and pragmatic view of energy security, focusing on managing interdependence. Rather than framing Russia as a hostile threat, the EU views it as one external supplier within a complex web of energy dependencies. Both parties remain mutually dependent and may perceive each other's actions as potentially threatening.

Geopolitical considerations are secondary to practical energy goals: diversifying sources and supply routes, strengthening the internal market, transitioning to renewable energy, and improving energy efficiency. The EU positions itself as an active reformist actor, seeking mutual benefits rather than power maximization.¹⁴

Chapter Two

2. Case Study: The Nord Stream 2 (NS2) Pipeline

The construction of NS2, an extension of NS1, commenced in 2015 as a central component of Russia's strategy to reinforce Gazprom's market position in Europe and circumvent Ukraine, thereby reducing transit fees. After the cancellation of the South Stream project, the Baltic route was seen by Russia as the most secure option.¹⁵ The project was co-financed by a consortium of European energy firms (Engie, Shell, OMV, Wintershall, Uniper) and traverses the Exclusive Economic Zones and territorial waters of Russia, Finland, Sweden, Denmark, and Germany, terminating at Greifswald.¹⁶

The pipeline's route faced significant political opposition, especially from Central and Eastern European countries like Poland.¹⁷ Seven prime ministers jointly warned the European Commission that NS2 would exacerbate the EU's strategic dependence on Russian gas. At the

¹⁴ *ibid* 1.

¹⁵ Fischer, S., 2016. *Nord Stream 2: Trust in Europe*. CSS Policy Perspectives, 4(4). ETH Zurich, available on [here](#), accessed 04/11/2025.

¹⁶ *ibid* 8.

¹⁷ Batzella, F., 2022. *Engaged but constrained. Assessing EU actorness in the case of Nord Stream 2*. Journal of European Integration, 44(6), pp.821–835, available on [here](#), accessed 04/11/2025.

same time, environmental concerns were raised, as the project contradicted decarbonization goals.¹⁸

The European Commission sought to block the project through three key interventions. First, it aimed to apply internal market rules to offshore pipelines, which was rejected by both its legal service and the German regulatory authority – *Bundesnetzagentur*. Second, it proposed negotiating an intergovernmental agreement with Russia, which the Council rejected due to concerns about an overreach of competences. Third, it revised the *Gas Directive* (2009/73/EC), which was approved despite Council concerns about its compatibility with UNCLOS. France's shift in support of the project's critics played a crucial role in changing the political dynamics.¹⁹

The case exposed institutional ambiguities within the Lisbon Treaty framework, where energy is a shared competence, but member states retain authority over their national energy mix. This tension placed pressure on the four core energy principles of Article 194 Treaty on the Functioning of the European Union.—market functionality, supply security, renewable energy promotion, and network interoperability. Facing heavy import dependency (57.5% of energy needs in 2020), the Union confronted rising prices, inflation, increasing state interventions, and the risk of new reliance on alternative suppliers.²⁰

New agreements were made to import liquefied natural gas (LNG) from the United States, Qatar, Algeria, and Norway, while investments in terminals and storage infrastructure have made LNG a key pillar of Europe's diversification strategy. This pursuit of independence appeared to reconfigure, rather than eliminate, external dependencies, with strategic autonomy remaining an elusive objective.²¹ In September 2022, explosions along the NS1 and NS2 pipelines marked their de facto cessation, leading to the most severe energy crisis in recent decades.²²

2.1 Germany's Response to the NS2 Pipeline

¹⁸ *ibid* 15.

¹⁹ *ibid* 8.

²⁰ European Parliamentary Research Service, 2023. *Nord Stream 2: Political and legal overview*. EPRS Briefing. European Parliament, available on [here](#), accessed 05/11/2025.

²¹ *ibid* 20.

²² *ibid* 2.

Germany's position on NS2 demonstrated unwavering commitment at considerable diplomatic cost. Its support for the project, without prior consultation with Central and Eastern European partners, weakened European unity.²³ The framing of NS2 as a purely commercial venture reflected a national self-conception as a trading power, one that overlooked the strategic and geopolitical consequences of the pipeline's development.²⁴

Although private corporations such as Wintershall and Uniper were key stakeholders, ultimate authority over the project remained with the federal government and EU institutions, highlighting the limited influence of commercial actors within this high-level strategic framework. Germany's significant energy dependence on Russia, combined with its political reservations regarding the United States, led to the deliberate characterization of NS2 as a "European" project, despite significant opposition from within the Union.²⁵

Russia's invasion triggered a policy reversal, with Germany's leadership acknowledging that their support for the pipeline had been a strategic miscalculation—a historic shift known as "Zeitenwende". The economic repercussions were severe: Uniper was nationalized and Wintershall incurred major losses despite its continued involvement in Russian energy ventures. Initial assurances that the project would not burden public finances proved erroneous, as substantial state intervention became necessary.²⁶

2.2 U.S. Response to the NS2 Pipeline

The United States views Europe as a vital market for its LNG exports, given the continent's reliance on imported fossil fuels.²⁷ Washington perceived NS2 as a threat that would diminish Ukraine's transit role and consolidate Russian influence in the region.²⁸ In response, the U.S. administration imposed sanctions on Russia, escalating geopolitical tensions. President Trump criticized the project as "inappropriate", accusing Germany of becoming

²³ *ibid* 15.

²⁴ Wood, S., 2023. *Germany and Nord Stream 2: evolution and end of an incongruous policy*. *International Politics*, 60(4), pp.718–741, available on [here](#), accessed 05/11/2025.

²⁵ *ibid* 24.

²⁶ *ibid* 24.

²⁷ Raimondi, P.P., 2025. *LNG and the Uncharted Future of US-EU Energy Relations*. IAI Commentaries 25|20. Rome: Istituto Affari Internazionali, available on [here](#), accessed 05/11/2025.

²⁸ *ibid* 15.

“overdependent” on Russia. Congressional sanctions were initiated in 2019, escalated in 2020, and expanded in 2021, demonstrating strong opposition to the pipeline.²⁹

Chapter Three

3. Russia's Invasion of Ukraine: The EU in Emergency Energy Response Mode

The EU's emancipation from Russian fossil fuels marks one of its most ambitious strategic realignments. Russia's invasion of Ukraine starkly revealed the perils of external energy dependence and catalyzed a fundamental geopolitical pivot.³⁰ Moscow's weaponization of energy—supplying cheap gas to allies like Belarus while charging higher prices to others, such as Ukraine—demonstrated its use as a coercive tool. Unilateral cuts to EU member states, including Poland, Bulgaria, Finland, Denmark, the Netherlands, and Germany, underscored the urgent need for energy autonomy.³¹

The *REPowerEU plan*, launched in 2022, aims to achieve EU energy autonomy and accelerate the green transition.³² Its main goals are phasing out Russian fossil fuels, expanding renewable energy – including North Sea wind farms and Southern European solar parks – improving energy efficiency, diversifying supplies, and strengthening the technology manufacturing base. The plan prioritizes green hydrogen and grid interconnections for system integration.³³ The 2025 proposal to prohibit new Russian gas contracts and end imports by 2027, confirms the Union's decisive turn toward full energy sovereignty.³⁴

Substantial progress has been achieved in diminishing Russia's energy leverage, with pipeline gas imports falling from over 40% in 2021 to 11% in 2024. This achievement was reinforced by six consecutive sanctions packages targeting Russia's energy sector.³⁵ However,

²⁹ *ibid* 17.

³⁰ European Commission (2022). *REPowerEU Action Plan*, available on [here](#), accessed 08/11/2025.

³¹ Lambert, L.A., Abdallah, I., Tayah, J., Lee-Schmid, C., Ali, A.H.M., Esmail, S., Abdalla, M. & Ahmed, W., 2022. The EU's natural gas Cold War and diversification challenges. *Energy Strategy Reviews*, 43, 100934, available on [here](#), accessed 08/11/2025.

³² *ibid* 30.

³³ *ibid* 7.

³⁴ Van Rensbergen, A., 2025. The EU's thirst for natural gas risks swapping one dependency for another. *The Parliament Magazine*, 14 April, available on [here](#), accessed 09/11/2025.

³⁵ *ibid* 6.

the transition has been uneven across member states. Hungary made a new agreement with Gazprom, the Czech Republic increased coal usage, and Germany, Austria, and the Netherlands revived lignite power plants. These divergent approaches revealed significant limitations in the coherence of a unified European energy policy.³⁶

The transition to renewable energy offers multiple advantages. Renewable power now costs two to four times less than fossil fuels or nuclear energy, with prices continuing to fall. As a domestic, long-term source, it mitigates supply risks and is projected to reduce electricity costs by at least 12% by 2035. Its decentralized structure enhances grid stability, while demand management and improved connectivity help counter intermittency.³⁷ Regulatory measures, such as France's mandate for solar panels on large parking facilities, exemplify concrete urban-level implementation.³⁸

However, the energy transition faces several challenges, including delays due to complex permitting processes and the need to balance intermittent renewable energy generation.³⁹ This context has revived the nuclear energy debate. Although low-carbon, nuclear power remains divisive. For example, France draws over 70% of its electricity from nuclear power, whereas Germany shut down its last nuclear plants in 2023. In several member states, nuclear energy is viewed as indispensable for providing stable baseload power and complementing intermittent renewables.⁴⁰

To enhance strategic autonomy, the European Commission introduced two key regulations: the *Net-Zero Industry Act* to boost EU clean tech production, and the *Critical Raw Materials Act* to secure essential supply chains for renewables.⁴¹ Following the Nord Stream sabotage, the EU reinforced critical infrastructure protection through the *NIS 2 Cybersecurity Directive*

³⁶ Proedrou, F., 2023. EU Decarbonization under Geopolitical Pressure: Changing Paradigms and Implications for Energy and Climate Policy. *Sustainability*, 15(6), 5083, available on [here](#), accessed 09/11/2025.

³⁷ Hobhouse, C., 2025. *Reimagining European energy security: Towards a whole-of-system approach*. EU Institute for Security Studies Brief No. 6, 18 February, available on [here](#), accessed 09/11/2025.

³⁸ *ibid* 36.

³⁹ *ibid* 37.

⁴⁰ *ibid* 7.

⁴¹ European Commission, 2023. *Ninth Report on the State of the Energy Union*, available on [here](#), accessed 09/11/2025.

and the *CER Resilience Directive*. This new framework links physical and digital infrastructure security, mandating protective measures and stress testing for energy systems.⁴²

In February 2025, the Energy Union entered a new operational phase with its *Affordable Energy Action Plan*, prioritizing lower costs, investment, and resilience. Structured around five pillars—security and solidarity, an integrated energy market, efficiency, decarbonization, and innovation—the initiative reinforces strategic autonomy. As Energy Commissioner Kadri Simson declared “We are no longer at the mercy of Putin's pipelines. Our Energy Union is now stronger and greener than ever”.⁴³

Amid evolving geopolitical and energy challenges, a crucial question arises: Has the EU genuinely attained energy autonomy, or has it primarily reconfigured its external dependencies, substituting Russian fossil fuels with alternative suppliers?

3.1 LNG and European (In)Dependence?

The EU's shift away from Russian fossil fuels drove a major increase in LNG imports, with the US supplying nearly half of these imports by 2023. Key national markets like France, Spain, Italy, the Netherlands, and Belgium used LNG to diversify their energy sources.⁴⁴ However, this new reliance introduces complex risks. LNG, predominantly sourced from shale gas, is energy-intensive to produce and carries a significant carbon footprint, compounded by systemic methane leakage throughout its extraction, processing, and transportation lifecycle.⁴⁵ Furthermore, Europe's uneven infrastructure—such as the isolated Iberian Peninsula and a lack of import terminals in Eastern Europe—hinders the development of a cohesive internal LNG market.⁴⁶

The geopolitical dimension of EU-US energy relations remains crucial. The Trump administration's lifting of LNG terminal construction bans, relaxation of methane regulations,

⁴² Karatrantos, T., 2023. *From Critical Infrastructures to Critical Entities: A Complex Security Process*. ELIAMEP Policy Brief No. 177/2023, March, available on [here](#), accessed 11/11/2025.

⁴³ European Commission, n.d. *EU Action to Address the Energy Crisis*, available on [here](#), accessed 11/11/2025.

⁴⁴ *ibid* 6.

⁴⁵ Howarth, R.W., 2024. *The greenhouse gas footprint of liquefied natural gas (LNG) exported from the United States*. Energy Science & Engineering, available on [here](#), accessed 11/11/2025.

⁴⁶ *ibid* 31.

and imposition of EU tariffs—despite growing European energy imports—demonstrate the political instrumentalization of energy trade.⁴⁷ This “drill baby drill” approach, alongside using LNG to reduce the US trade deficit, exposes EU vulnerability to both market volatility and political pressure.⁴⁸ Strengthening EU strategic autonomy now requires combining soft power tools with hard power elements, such as energy resilience and collective bargaining capacity, including potential economic countermeasures.⁴⁹

Conclusion

The EU's transition to energy independence from Russia is a complex and ongoing process, marked by notable achievements but also new dependencies. Heavy reliance on LNG is not a sustainable solution. Energy security in Europe cannot be achieved by merely replacing Russian dependence with American dependence. Instead, it necessitates a multifaceted strategy comprising substantial investment in renewable energy sources, the reinforcement of transnational energy interconnections, strategic support for green hydrogen development, and improvements in both industrial capacity and defense readiness. Europe's future energy sovereignty will ultimately hinge on a calibrated equilibrium between external supply diversification and the fortification of internal resilience.⁵⁰

Through a range of policy tools, the EU seeks to reposition itself on the global energy stage. However, energy dependence is reciprocal—while the EU depends on US LNG, the US also relies on sustained European demand for the viability of its export model. In an era characterized by a deeply interconnected global energy market, the pursuit of absolute self-sufficiency is neither a realistic nor a strategically optimal objective. The EU's strategy should shift from the rhetoric of “independence” to a “risk diversification” approach, focusing on securing diverse, reliable, and sustainable sources, enhancing renewables, and promoting energy efficiency.⁵¹ This path of strategic interdependence, rather than the illusion of complete autonomy, defines a realistic and sustainable energy future for the EU.

⁴⁷ *ibid* 27.

⁴⁸ *ibid* 34.

⁴⁹ Tzogopoulos, G.N., 2022. *The Ukraine Crisis: There Is Still Room for Diplomacy*. Policy Brief 158/2022. Athens: Hellenic Foundation for European & Foreign Policy (ELIAMEP), available on [here](#), accessed 12/11/2025.

⁵⁰ *ibid* 31.

⁵¹ Durakovic, G., Zhang, H., Knudsen, B.R., Tomsgard, A & Crespo del Granado, P., 2023. *Decarbonizing the European energy system in the absence of Russian gas: Hydrogen uptake*

and carbon capture developments in the power, heat and industry sectors, available on [here](#), accessed 15/11/2025.