

## ALIGNING ECONOMIC SECURITY AND CLEAN ENERGY TRANSITION: THE WESTERN BALKANS IN THE CONTEXT OF THE EU'S GAS DIRECTIVES

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**Abstract:** The European Union (EU) is actively aiming a transition to clean energy as part of its Green Deal strategy (European Commission, 2019), which aims for climate neutrality by 2050. This shift involves moving away from traditional fossil fuels such as coal, petroleum and natural gas, towards renewable energy sources (e.g., sunlight, wind, geothermal heat, or flowing water), and low - carbon energy sources, such as hydrogen and biomethane. While the EU's efforts focus on achieving sustainability, its strategy also prioritizes energy security. The Western Balkans, heavily reliant on imported natural gas, face unique challenges and opportunities in aligning with the EU's energy policies, particularly the recently updated gas directives. This paper examines the legal and economic implications of these directives for the Western Balkans, particularly in the context of economic security. It highlights the role of Foreign Direct Investment (FDI) in driving the transition to clean energy and explores how aligning with EU standards can attract critical investment to develop hydrogen-ready infrastructure. The paper also discusses the legal frameworks governing energy supply chain security and the implications for regional integration. By addressing these issues, the paper aims to provide a roadmap for harmonizing economic security with the clean energy transition in this strategically important region.

**Keywords:** FDI; West Balkans; low-carbon energy sources; European Green Deal; EU Gas-Directives; renewable energy sources

### 1. INTRODUCTION

#### Background

The European Green Deal represents a comprehensive approach to addressing climate change by transitioning to sustainable energy systems. To sustainable energy systems count renewable energy sources and low-carbon sources. While renewable energy sources come from naturally replenishing resources (e.g., sunlight, wind, geothermal heat, or flowing water), the low-carbon/carbon-neutral sources focus on reducing or offsetting greenhouse gas emissions but may rely on finite resources or processes. Hydrogen (even green) and biomethane are best seen as low-carbon transition fuels that complement truly renewable energy sources in the shift to a decarbonized economy. Achieving this transition, however, requires substantial legal, technical, and economic reforms. The Western Balkans, as a region outside the EU but closely tied to it through energy and trade relationships, faces distinct challenges. The region is reliant on natural gas imports, making energy security a pressing concern. At the same time, the EU's push for cleaner energy presents opportunities to reduce dependence on fossil fuels and diversify energy supplies. These challenges of aligning with EU energy directives while maintaining economic security are the basis of this research.

### 2. ECONOMIC SECURITY IN THE CONTEXT OF ENERGY

Energy security is defined „ *as the uninterrupted availability of energy sources at an affordable price. It is a cornerstone of the EU's Energy Union strategy, aiming to reduce dependency on a single supplier or source and to ensure economic resilience in energy supply* “(European Commission, 2015). Economic security in the energy sector means therefore, stable energy supplies, affordability, and resilience against external and unforeseen situations (shocks). For the EU, these objectives align with its broader sustainability goals, as outlined in the Green Deal. Diversifying energy sources means reducing dependency on single supplier and diversifying imports from multiple regions. For the Western Balkans, natural gas remains a primary energy source due to its affordability and relatively lower emissions compared to coal. However, the geopolitical risks associated with dependency on external suppliers highlight the need for regional diversification. Harmonizing gas standards, upgrading infrastructure, and integrating hydrogen-ready systems are key milestones in enhancing the region's energy security.

### 3. EU GAS DIRECTIVES AND LEGAL FRAMEWORKS

#### Directive 2009/73/EC

Directive 2009/73/EC represents a cornerstone in the development of the EU's internal gas market, introducing critical reforms aimed at unbundling supply chains and fostering competition. This directive sought to break down monopolistic structures by separating production, transmission, and distribution activities, ensuring greater transparency and non-discriminatory access to the gas market. Block and Khadzhyanova (2024, p. 385) elaborate on this regulatory evolution, emphasizing the important role of legal measures in establishing market efficiency and

transparency across Member States. In addition, Directive 2009/73/EC addressed barriers to cross-border gas trade by setting harmonized rules that facilitated the integration of national markets into a unified EU gas market. These measures not only enhanced competition but also improved consumer protection by ensuring fair pricing and secure supply. Moreover, the directive laid the groundwork for subsequent legislative initiatives, such as the emphasis on renewable and low-carbon gases, which are increasingly central to the EU's Green Deal and decarbonization goals. This directive, therefore, marks a significant shift in the EU's approach to energy policy, prioritizing market liberalization while aligning with broader objectives of sustainability and energy security. Its impact resonates beyond the legal framework, influencing infrastructure development and investment in energy systems compatible with future energy transitions.

#### **Directive (EU) 2019/692**

Building on this basis, Directive (EU) 2019/692 extended these principles to gas pipelines connecting the EU to third countries. This amendment was of great importance in ensuring that external connections comply with the EU's internal market standards, fostering consistency in cross-border trade.

#### **FDI Regulation**

In parallel, Regulation (EU) 2019/452 established a framework for screening foreign direct investments in critical infrastructure, including energy. While primarily designed for EU Member States, the regulation serves as a model for the Western Balkans in safeguarding investments that align with their economic and environmental goals.

#### **Case – law on energy market integration**

The Court of Justice of the European Union (CJEU) has consistently underscored the importance of harmonization and interoperability in energy markets. For instance, in *Case C-587/12, Commission v. Belgium*, the Court highlighted the necessity of eliminating barriers to cross-border energy trade. Similarly, *Case C-239/07, Sabatauskas and Others* reinforced the principle that interoperable systems are essential for achieving a functioning internal market.

### **4. CHALLENGES AND OPPORTUNITIES FOR THE WESTERN BALKANS**

#### **Infrastructure and Policy Gaps**

The Western Balkans face several hurdles in aligning with EU gas directives. Existing infrastructure often lacks the capacity to integrate renewable gases like hydrogen. Frattini, Becattini, and Mazzotti (2020, p. 654) emphasize that overcoming these challenges requires a cohesive legal and regulatory framework for carbon capture, storage, and transport to support the transition to low-carbon energy systems. Moreover, delays in adopting EU energy acquis hinder regional efforts to attract investment and integrate with EU markets. As Gheuens and Oberthür (2021) argue, „The EU's climate and energy policy exhibits a certain degree of myopia, focusing on immediate challenges without adequately addressing the long-term structural transformations required in energy systems and governance“ (pp. 337–338). Addressing these systemic issues is critical for aligning regional energy strategies with the EU's long-term climate and energy objectives.

#### **Investment Opportunities**

Despite these challenges, aligning with EU energy policies presents opportunities for growth. Developing hydrogen-ready infrastructure and investing in low-carbon technologies can attract FDI, drive economic development, and enhance energy security. As Torney and O'Gorman (2020, p.12) observe, adaptability in carbon emission reduction frameworks is essential for aligning investments with the EU's 2030 Climate and Energy Policy Framework. The REPowerEU Plan provides a roadmap for accessing EU funding and technical assistance, enabling the region to modernize its energy systems and reduce dependence on imported fossil fuels.

#### **Case Study: Hydrogen-Ready Interconnector in North Macedonia and other endeavors towards low-carbon emissions**

North Macedonia's planned hydrogen-ready interconnector project illustrates the potential for regional cooperation in advancing the clean energy transition. Scheduled for completion by 2027, the project aims to connect Greece, followed later by subsequent projects with Serbia and Kosovo, creating a vertical energy corridor.

This initiative addresses current natural gas needs while preparing for future hydrogen integration. Preliminary assessments indicate that harmonizing gas quality standards at interconnection points could increase cross-border energy flows by 15% and reduce technical disputes by 30%. Such outcomes would align the region with EU directives, fostering both economic and environmental benefits.

In addition, North Macedonia expects to significantly reduce its greenhouse gas emissions—by as much as 50%—by transitioning its gas plants from coal and oil to natural gas. Although natural gas is not a renewable energy source, it is considered a low-carbon alternative that aligns with the country's goals to lower its carbon footprint in accordance with the Paris Agreement (United Nations Framework Convention on Climate Change (UNFCCC), 2015). This shift not only reduces environmental impact but also ensures greater energy stability and security.

Elektrani na Severna Makedonija (ESM), the leading electricity producer in North Macedonia, is at the forefront of this transition (Elektrani na Severna Makedonija. (n.d.). Production capacities). ESM is responsible for producing about 90% of the nation's electricity, utilizing a mix of thermal power plants, hydro power plants, a wind park, and photovoltaic power plants. As part of its long-term strategy, ESM is investing in renewable energy expansion and converting its existing plants to operate on natural gas. There is also a plan to integrate up to 20% hydrogen, which will further decarbonize energy production. Under these conditions, energy from these plants could be classified as green, marking a significant step forward for the country's energy sector and its alignment with European climate objectives.

## 5. HARMONISING GAS QUALITY IN THE CESEC REGION

On 29<sup>th</sup> October 2024 in Budapest, Hungary, was signed a Memorandum of Understanding (MoU) on harmonising gas quality requirements at interconnection points within the Central and South-Eastern European Energy Connectivity (CESEC) region before the ministerial-level CESEC meeting. With the agreement, the parties undertake to develop a joint regional harmonisation proposal until April 2025 (FGSZ, 2024). It represents a significant advancement in addressing barriers to cross-border energy trade. Signed by numerous gas transmission system operators (TSOs) in Central and Southeast Europe, the MoU aims to create a unified framework for gas quality standards, enabling seamless interoperability of energy infrastructure. This initiative aligns with the EU's broader goals of energy security, sustainability, and affordability as outlined in the European Green Deal and the REPowerEU Plan (European Commission, 2022).

The CESEC region is from great importance to the EU's energy strategy due to its historical reliance on single natural gas imports and the necessity of diversifying supply sources. The region includes countries in Central and Southeast Europe, many of which face unique challenges related to fragmented infrastructure and varying regulatory standards. As noted by the European Commission, the CESEC initiative aims to enhance interconnectivity and market integration by prioritising infrastructure upgrades and harmonisation efforts (European Commission, n.d.). Gas quality harmonisation is critical to these goals, as divergent standards at interconnection points impede the efficient flow of gas and limit market liquidity.

### Legal Framework and Objectives

The MoU is underpinned by several EU legal instruments that emphasise the importance of harmonisation and interoperability. Regulation (EU) 2024/1789 on the internal markets for renewable gas, natural gas, and hydrogen, and Regulation (EU) 2017/1938 concerning the security of gas supply, provide a robust framework for ensuring that technical barriers do not hinder the energy transition. Additionally, the European Committee for Standardisation's work on harmonising gas quality standards (EN 16726) supports this initiative, ensuring alignment with EU-wide technical requirements.

The legal context of the MoU reflects the strategic importance of optimising existing infrastructure. As emphasised by Regulation (EU) 2015/703, interoperability and data exchange rules are essential for fostering a competitive and integrated energy market. By aligning gas quality standards, the MoU removes barriers to cross-border trade, thus enabling the CESEC region to fully participate in the EU's internal energy market.

### Policy Implications and Regional Cooperation

The MoU sets a clear timeline for action, with the harmonisation framework expected to be implemented by 2025. This urgency underscores the necessity of adapting infrastructure to accommodate diversified supply routes, such as LNG imports through Greece and natural gas flows from Azerbaijan. Moreover, the agreement prioritises cost-effective solutions, leveraging existing infrastructure rather than relying on extensive new investments. Thomas and Erickson (2021, p. 8) discuss the importance of "energyshed" design in achieving low-carbon energy pathways, emphasizing the potential for regional energy cooperation to enhance efficiency and sustainability.

This initiative is not limited to technical adjustments but extends to fostering regional cooperation. By involving TSOs, national regulatory authorities, and the European Commission, the MoU ensures a collaborative approach to addressing legal and technical complexities. As highlighted by the European Commission, the CESEC framework has already demonstrated its effectiveness in identifying and delivering regional energy priorities (European Commission, n.d.).

This cooperation reflects the broader goals of the EU's Green Deal and the REPowerEU Plan, which stress the importance of regional initiatives in achieving energy security and climate neutrality. By aligning gas quality standards, the CESEC region enhances its resilience against external shocks, reduces dependency on single suppliers, and supports the EU's decarbonisation objectives.

### Relevance to the Western Balkans

The CESEC initiative holds particular significance for the Western Balkans, a region interconnected with the EU's energy framework. Harmonising gas standards is critical for enabling the region to attract foreign direct investment

(FDI) and integrate with EU markets. As noted in previous sections, North Macedonia's hydrogen-ready interconnector project exemplifies the potential for regional cooperation to advance clean energy transitions. Similarly, aligning gas quality standards can increase cross-border energy flows and reduce disputes, fostering economic and environmental benefits.

The MoU demonstrates the critical role of regional cooperation in overcoming technical barriers and aligning with EU directives. By addressing these challenges, the CESEC region contributes to the EU's broader goals of energy security, market integration, and climate neutrality, while also enhancing its own resilience and competitiveness in a rapidly evolving energy landscape.

## 6. CONCLUSION

Aligning economic security with the clean energy transition is critical for the Western Balkans as they navigate a rapidly changing energy landscape. By harmonizing gas standards, upgrading infrastructure, and attracting FDI, the region can reduce its reliance on fossil fuels, enhance energy sovereignty, and contribute to the EU's decarbonization goals.

This paper demonstrates the importance of the EU's gas directives and the broader regulatory framework in facilitating these objectives. Future efforts should focus on implementing these policies effectively, ensuring that regional integration supports both economic and environmental sustainability.

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