The Green Transition in the Western Balkans

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The entry into force of the definitive regime of the European Union's Carbon Border Adjustment Mechanism (CBAM) on 1 January 2026 constitutes a decisive turning point in the energy and industrial trajectory of South-Eastern Europe. This regulatory milestone, marking the end of the transitional period initiated in October 2023, confronts the economies of the Western Balkan countries, namely Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia, with a fundamental contradiction between their European aspirations and the persistence of highly carbon-intensive economic structures.

The adoption of the Sofia Declaration in October 2020 formalised the commitment of these six candidate or potential candidate states to the objective of carbon neutrality by 2050, in line with the Green Agenda for the Western Balkans *(Regional Cooperation Council, 2021)*. However, the effective implementation of these commitments faces major structural constraints: obsolescence of energy infrastructures, systemic dependence on fossil fuels, and insufficient institutional capacities to orchestrate a transformation of such magnitude.

Despite the mobilisation of 30 billion euros by the European Union under its Regional Economic Investment Plan (European Commi*ssion, 2020)*, the absence of coherent national transition strategies and a deficit of political will portend considerable socio-economic tensions in this South-Eastern European region. Consequently, the year 2026 materialises the inflection point where the costs of climate inaction become tangible and where a window of opportunity opens to transform a regulatory constraint into a catalyst for modernisation. We shall therefore analyse the multidimensional challenges of this critical deadline, as well as the possible trajectories towards an equitable and viable energy transition.

Dependence on fossil fuels and macroeconomic shocks: a structural vulnerability

The current energy configuration in the Balkans results from socialist infrastructure investments creating a constraining technological path dependence, as evidenced by the various coal dependence coefficients observed in these countries: 95% in Kosovo, 67% in Serbia, 65% in Bosnia and Herzegovina, 51% in North Macedonia, and 41% in Montenegro (Germanwatch, 2025). The production fleet (1970s-1980s) exhibits utilisation rates below 50% of nominal capacity. The regional carbon intensity, triple that of the EU, underscores this obsolescence: in 2019, the 18 plants emitted a volume of SO_2 equivalent to double that of the 221 combined European installations, causing approximately 28,000 premature deaths annually (Health and Environment Alliance, 2023).

This energy configuration then becomes an immediate economic vulnerability with the CBAM (EU Regulation 2023/956), adopted by the EU in trilogue in December 2022. After a transitional phase (2023-2025), the definitive regime imposes the acquisition of certificates proportional to carbon content, valued at approximately €80/tCO_2. The Energy Community Secretariat (October 2024) estimates the annual cost of CBAM for the Western Balkan countries at €1.2 billion, representing approximately 1% of regional GDP, a major macroeconomic shock (Energy Community Secretariat, 2024). For electricity, a Bruegel article estimates a penalty of €70-80 per MWh exported, with a potential 60% contraction of flows for Serbia and Bosnia and Herzegovina (McWilliams et al., 2025). The steel, cement, and aluminium industries will, for their part, have to integrate an additional cost, eroding their competitiveness, thus constituting an existential risk.

Political economy analysis reveals that this perpetuation is embedded in a configuration where public energy companies structure public employment and clientelist networks. In Serbia, Bosnia and Herzegovina, and Kosovo, these entities account for several tens of thousands of direct positions. Governments, confronted with structural unemployment, rationally anticipate a "greenlash". Entanglement in rent networks ensures that concentrated sectoral interests prevail over diffuse environmental concerns (Sustainable Governance Indicators, 2024).

This political configuration consequently explains the institutional unpreparedness: indeed, no jurisdiction has established an operational carbon pricing system before January 2026, implying a transfer of CBAM revenues to the European budget. CEE Bankwatch documents unrealistic expectations (postponements, exemptions) reflecting a cognitive inadequacy between the constraining regulatory architecture and local perceptions (CEE Bankwatch Network, 2025). Counterfactual analysis reveals that strategic anticipation would have enabled the capture of €2.8 billion (2026-2030), resources now inaccessible. This failure thus transforms a manageable adjustment into a systemic shock, illustrating how institutional inaction exponentially amplifies the costs of an inevitable transition.

Transformation trajectories: how to convert regulatory constraint into a lever for modernisation?

Faced with the CBAM, the introduction of national carbon pricing systems emerges as the optimal rational response. This option presents three distinct advantages: it would substantially mitigate CBAM costs by demonstrating that carbon taxation is operational at the national level; it would generate €2.8 billion between 2026 and 2030, a sum mobilisable for the transition; and it would finally transmit an effective price signal to economic agents, encouraging improvements in energy efficiency and the reorientation of investments. Several emerging economies have already integrated this logic: Serbia, Turkey, India, and China are developing these systems to avoid fiscal transfer to the EU. In the Balkans, Albania and Montenegro have initiated discussions, without achieving operationalisation. The temporal constraint remains critical: the pre-2026 window is now closed, but deployment in 2026 would significantly mitigate adverse impacts.

More ambitious, the CEPS proposal (2024) advocates complete integration of the Balkans into the EU ETS with temporary free allocations (2026-2034), inspired by Article 10c or the Modernisation Fund that facilitated the transition in Central and Eastern Europe (Egenhofer, 2023). The mechanism relies on a sophisticated incentive mechanism: the Balkans would receive for free remaining ETS allocations (approximately €20 billion) acquired after plant closures, usable as collateral for new renewable investments. This mechanism would create an economically optimal incentive structure: instead of artificially maintaining obsolete and non-

viable assets, operators would have a direct financial interest in accelerating their closure to release the latent value of allocations (approximately €10 billion effectively available) and reallocate these resources towards clean technologies. Presented in December 2023 to the Energy Community, this proposal likely represents the only realistic trajectory towards complete coal elimination by 2034. The necessary investments to substitute 5 GW of capacity are estimated at less than €15 billion, a manageable amount by combining European financing and ETS allocations.

The Balkans, moreover, possess considerable unexploited potential: solar irradiation comparable to southern Italy, coastal and continental wind potential, geothermal energy (cf. Szeged in Hungary), hydroelectricity, and sustainable biomass (Joint Research Centre, 2024). The central challenge nevertheless lies in the insufficiency of financial, technical, and administrative capacities: rigorous impact studies, stable regulatory frameworks, modernised networks, and accessible financing.

The Polish and Czech experiences offer contrasting lessons. Poland has thus reduced its coal production from 150 Mt to 53 Mt between 1990 and 2022, its mining employment (from 400,000 to 75,000), and its GHG emissions (–20%), with remarkable photovoltaic development (14 GW in 2023, 40% of renewable capacity) (Kardas, 2023). The Czech Republic aims for 2033 for coal phase-out. However, Poland maintains a 2049 timeline incompatible with the objectives of the Paris Agreement, and Silesia demonstrates that generous packages do not guarantee community success without a vision for territorial reconversion (Śniegocki et al., 2022). The Czech conversion towards gas, whilst less polluting, compromises 2050 neutrality.

The Hungarian paradox finally illustrates possible contradictions: during its Council Presidency (H2 2024), Budapest prioritised competitiveness over climate ambition (48th/59 in CCPI 2026), attempting to block 2050 neutrality whilst developing the largest European geothermal system (CCPI, 2025). This selective approach, favouring comparative advantages, nevertheless generates non-negligible costs: diplomatic isolation, limited access to conditional financing, and a manifestly undesirable model for the Balkans.

Financing, geopolitics and viability: the external determinants of transition

The EU has deployed several instruments to finance the energy transition of the Western Balkan countries: the EU Growth Plan (€6 billion, of which 37% is for climate), the Economic and Investment Plan (€9 billion IPA III + €20 billion in guarantees) (European Commission, 2024), the Initiative for Coal Regions in Transition (technical assistance, Coal Academy, financing from WB/EBRD/EIB), as well as potentially the ETS Modernisation Fund (€15.5

billion paid to the Czech Republic, Romania, and Poland since 2021, adaptable into a "Western Balkans Coal Phase-Out Fund" according to CEPS).

A considerable differential nevertheless persists. New member states have benefited from superior flows. The Balkans do not possess an equivalent of the Just Transition Fund for their coal regions, creating a risk of community abandonment and lasting political opposition. ECFR (2023) observes that states "lack capacity to formulate innovative projects" managing accession and decarbonisation simultaneously, thus aggravating absorption difficulties (Fanku, 2023). This asymmetry between nominal means and actual capacities constitutes a critical, too often underestimated constraint.

The insufficiency of European financing generates a geopolitical vacuum susceptible to exploitation by extra-European actors. China (Belt and Road) has thus provided $6.7 billion since 2010, notably financing coal plants in Tuzla, Bosnia and Herzegovina ($731M), and Kostolac, Serbia ($608M), projects refused by European financial institutions for environmental non-compliance (Crawford, 2024). This presence inscribes itself within a strategy of economic opportunism rather than a coherent geopolitical plan but nevertheless creates problematic dependencies.

In 2024, China announced $2.18 billion in renewables in Serbia, signalling tactical adaptation to new international climate priorities. Serbia has become the recipient of 79% of regional Chinese FDI, this concentration reflecting strategic instrumentalisation of the Chinese partnership by Belgrade as a negotiating lever vis-à-vis the EU (Shopov, 2025). Russia maintains, for its part, influence via hydrocarbons, particularly in Serbia and Bosnia and Herzegovina, despite post-Ukraine diversification (Serbian-Bulgarian interconnector, 2023).

The absence of substantial intensification of European support entails the tangible risk of reorientation towards these extra-European alternatives to finance energy development or, in a more probable scenario, to perpetuate fossil dependence. Such an evolution would prove deleterious both from the perspective of climate objectives and European geopolitical coherence, the Balkans constituting a critical region for continental stability and security.

The viability of transition trajectories depends fundamentally on the capacity to articulate three often contradictory imperatives: climate ambition compatible with Paris objectives, social equity ensuring that coal communities are not abandoned, and geopolitical coherence preventing fragmentation of European influence in a region of strategic importance.

Without the development of a Just Transition Fund dedicated to Balkan coal regions, the transition will be perceived as unjust and will encounter insurmountable political resistance. The Silesian experience, moreover, demonstrates that a reactive transition, even generously financially compensated, fails to create conditions for sustainable post-coal development if it is not accompanied by a strategic vision of territorial economic reconversion (Śniegocki et al., 2022).

The geopolitical dimension requires that the EU apprehend the energy transition in the Balkans not as a technical environmental policy dossier, but as a strategic issue of influence and regional stability. A European failure would indeed leave China and Russia positioned to fill the void with financing, perpetuating fossil dependence and increasing their influence in a region whose stability directly conditions European security.

The year 2026 materialises an inflection point where regulatory constraint (CBAM), infrastructural obsolescence, and a window of opportunity for structural modernisation converge. The analysis reveals that current vulnerability results less from fatality than from strategic failure: unpreparedness facing a foreseeable deadline transforms a manageable adjustment into a systemic shock (€1.2 billion annually, representing approximately 1% of GDP).

Transformation trajectories are technically viable: national carbon pricing (€2.8 billion in 2026-2030), ETS integration with temporary allocations (€10-20 billion to replace 5 GW by 2034), and valorisation of renewable potential. The Polish and Czech examples, despite their limitations, demonstrate that transformation remains achievable in historically coal-dependent regions.

The critical deficit lies in political will and institutional capacities. Governments must recognise the non-negotiable character of CBAM, apprehending the transition as an opportunity (modernisation, employment, health, currently approximately 28,000 premature deaths annually). The EU must intensify its support: developing a dedicated Just Transition Fund, a condition of social acceptability.

The geopolitical dimension conditions success: a European failure would leave China and Russia to perpetuate fossil dependence, increasing their regional influence. The Hungarian case recalls that resisting climate policies implies major costs. The Balkans must transcend this model. The window is contracting. Decisions in the coming months will determine whether this transition will be orchestrated proactively and equitably or undergone in disorder. For the Balkans, the stakes transcend energy: it is the credibility of their European ambition that is at stake.

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