

Failing Decarbonization in the Western Balkans



ECO



INSTITUTE FOR SOCIOECONOMIC DEVELOPMENT OF WESTERN BALKANS

The first Think Tank established beyond the Western Balkans, exclusively dedicated to sustainable development in the region. Comprising experts in Pluralist Economics, we promote policies and practices that support economic stability, environmental sustainability, and social inclusion. Through rigorous research, strategic partnerships, and advocacy, we aim to influence both regional and international decision-making processes, ensuring that the Western Balkans can thrive in a global context. Our commitment to evidence-based policies, innovation, and collaboration drives our efforts to create a prosperous and sustainable future for all communities in the region.



PURPOSE OF THE DOCUMENT

The main purpose of this document is to show the significant decarbonization challenges of the Western Balkans due to their heavy reliance on coal, outdated infrastructure, and financial constraints. While the EU has been instrumental in supporting the green transition through financial assistance and policy alignment, the existing mechanisms are often misaligned with the region's socio-economic realities, limiting their effectiveness. This policy brief highlights the key barriers and explores the potential for tailored solutions, emphasizing the need for sustainable climate finance, institutional reforms, and a just transition.



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Introduction

Western Balkan governments have formally committed to climate neutrality by 2050 and adopted increasingly ambitious 2030 energy and emissions targets through the Energy Community, national climate plans and the Sofia Declaration. Implementation, however, remains uneven. Almost half of the region's electricity is still generated from coal. Coal's role is considerably higher in individual economies: according to Eurostat data for 2023, it accounted for approximately 91% of electricity generation in Kosovo, 60% in Serbia, 56% in Bosnia and Herzegovina, 40% in North Macedonia and 39% in Montenegro*. Albania produces virtually no coal-fired electricity and remains heavily dependent on hydropower.

This dependence is accompanied by ageing infrastructure. Around half of installed electricity-generation capacity in the region was already more than 35 years old by 2023, while many thermal power plants are approaching or exceeding their expected technical lifetimes.

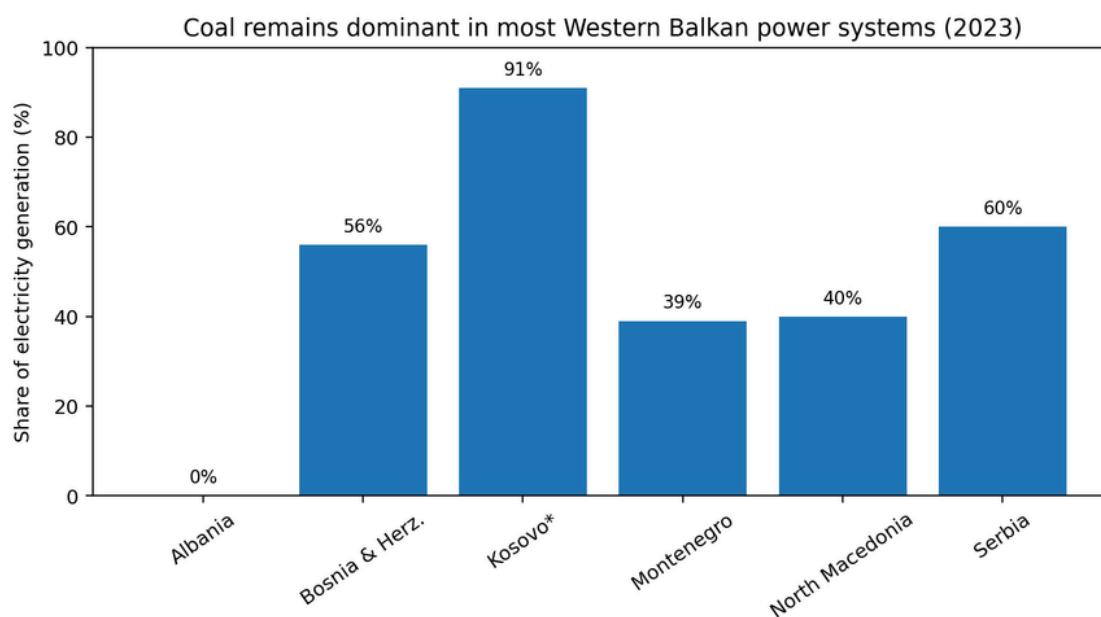
The consequences are environmental as well as economic. OECD analysis found that in 2023 just 18 coal-fired thermal plants in Serbia, Bosnia and Herzegovina, Montenegro and North Macedonia emitted 43% more sulphur dioxide than all 221 coal power plants operating in the European Union combined.

Carbon intensity is similarly problematic. Western Balkan CO₂ emissions per capita are approximately 4.85 tonnes, compared with 5.6 tonnes in the EU. Yet regional GDP per capita is only about one-fifth of the EU level. Consequently, CO₂ emissions per unit of economic output are approximately twice EU and OECD averages. The problem is therefore not merely that the Western Balkans use coal. The region uses large quantities of carbon-intensive energy to generate comparatively little economic output.

CURRENT STATE OF DECARBONISATION

Coal dependence remains structurally embedded

The power systems of the Western Balkans were largely built around domestically available lignite and large hydropower facilities. This legacy continues to determine investment, employment, electricity pricing and political incentives.



Source: Eurostat, nrg_bal_peh; 2023 data. Albania: 0%.

Figure 1 – Coal share in electricity generation, Western Balkans, 2023. Eurostat's energy-balance data.

Renewable deployment is accelerating, but from a low base outside hydropower. OECD data show that wind and solar together represented only around 9.3% of renewable electricity generation in the Western Balkans in 2023. At the same time, the region has substantial economically viable potential: estimated cost-competitive potential amounts to approximately 12.2 GW of wind and 4.4 GW of solar capacity. This creates a paradox. Renewable resources are available and costs have fallen, yet investment continues to be restrained by grid bottlenecks, permitting problems, market uncertainty and the financial position of incumbent utilities.

Decarbonisation is also a pricing problem

One of the strongest barriers receives considerably less attention than renewable-energy targets: electricity prices frequently do not reflect the real economic cost of the energy system. Average household electricity prices in the Western Balkans were approximately €0.097/kWh in 2024, only around one-third of the EU average of €0.29/kWh. Low prices serve an important social function in economies where household incomes remain far below EU levels. But broad price suppression also weakens incentives for energy efficiency, reduces utility revenues, discourages private investment and creates recurrent fiscal liabilities.

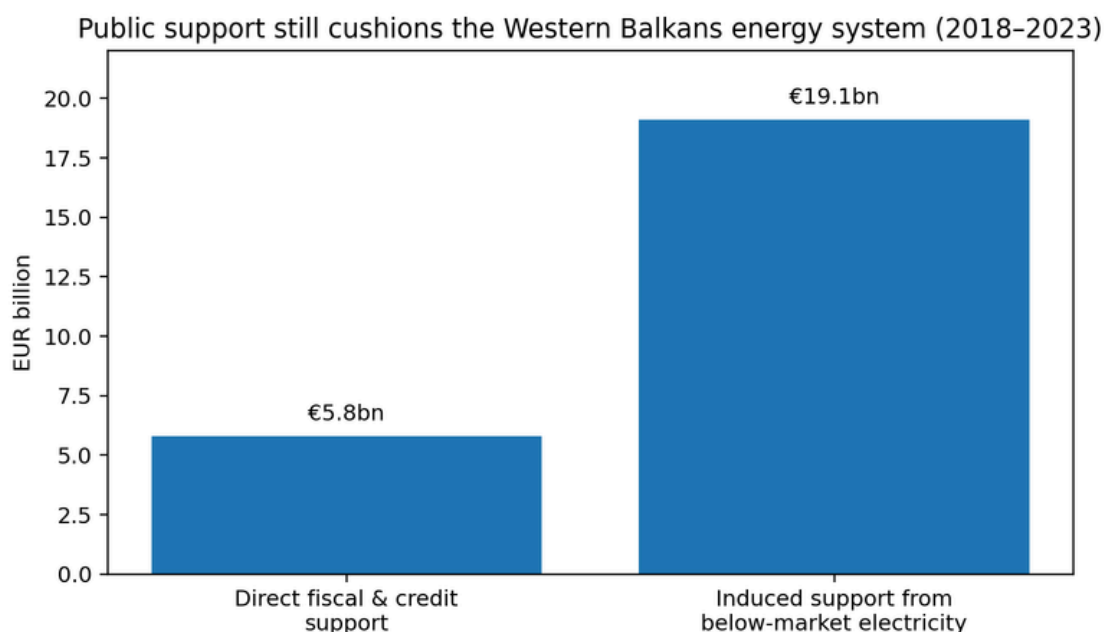
CURRENT STATE OF DECARBONISATION

OECD estimates that between 2018 and 2023 Western Balkan governments provided:

- €5.8 billion in direct fiscal and credit support to energy producers and consumers; and
- an estimated €19.1 billion of additional induced support through electricity supplied below reference market prices.

Much of this support ultimately sustained fossil-based electricity systems.

This is one of the central contradictions of Western Balkan climate policy: governments simultaneously commit to phasing out carbon-intensive energy while using public resources and regulated prices to preserve its economic viability.



Source: OECD, Energy Prices and Subsidies in the Western Balkans (2025).

Figure 2 – Energy Community decarbonisation implementation scores, 2025.

Serbia is far ahead on legal/regulatory implementation while Bosnia and Herzegovina remains far behind.

CURRENT STATE OF DECARBONISATION

Infrastructure inefficiency compounds the problem

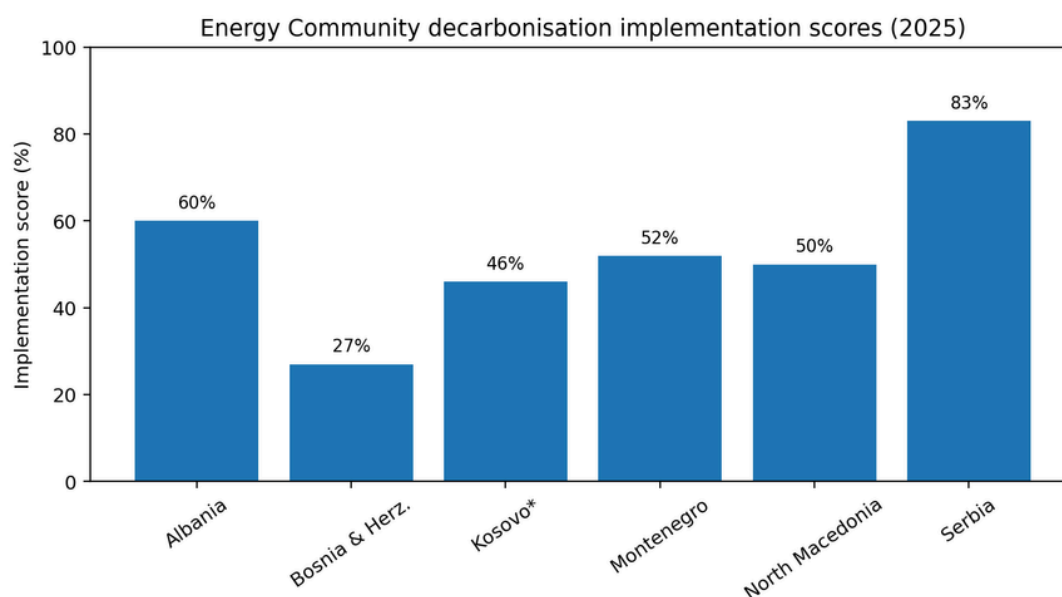
Decarbonisation is frequently discussed in terms of replacing coal capacity with renewables. Yet a considerable part of the region's problem occurs between generation and consumption.

Distribution losses averaged approximately 13% in the Western Balkans in 2021, compared with only 6.3% in the EU. More recent national data continue to show losses of around 9–17% across individual Western Balkan systems.

Reducing losses, modernising transmission networks, introducing smart-grid technologies and improving building efficiency can therefore lower the amount of new generation capacity required.

Institutions are progressing at very different speeds

The Energy Community's 2025 implementation assessment demonstrates large differences between the Western Balkan economies. The spread between Bosnia and Herzegovina and Serbia is more than 50 percentage points, illustrating why there is no single Western Balkan transition pathway. Progress on National Energy and Climate Plans is similarly uneven. By mid-2026, Albania, Montenegro, North Macedonia and Serbia had adopted plans. Bosnia and Herzegovina and Kosovo* still had not notified final NECPs, leading the Energy Community Secretariat to pursue infringement procedures in 2026. The challenge is therefore increasingly one of implementation rather than target-setting.



Source: Energy Community Secretariat, Annual Implementation Report 2025.

Figure 3 – Energy Community decarbonisation implementation scores, 2025.

Serbia is far ahead on legal/regulatory implementation while Bosnia and Herzegovina remains far behind.

EUROPEAN COMMISSION POLICIES FOR THE WESTERN BALKANS

The European Union has constructed an extensive policy and financial architecture for decarbonisation in the region. The 2020 Economic and Investment Plan for the Western Balkans envisaged up to €9 billion in EU grant funding, alongside a guarantee facility expected to mobilise significantly larger investment. Climate action, sustainable energy and the green transition were central components.

The Green Agenda for the Western Balkans, endorsed under the Sofia Declaration, committed governments to alignment with the European Green Deal and eventual climate neutrality by 2050. More recently, the Reform and Growth Facility for 2024–2027 provides €6 billion, comprising €2 billion in grants and €4 billion in highly concessional loans. At least half of the Facility is channelled through the Western Balkans Investment Framework for investments including energy and the green transition. The problem is consequently not the absence of European support. Instead, three limitations stand out.

1. Investment finance cannot compensate for distorted domestic incentives

Governments cannot sustainably subsidise fossil-based electricity, maintain regulated prices below economic cost and simultaneously expect private investors to finance large-scale renewable deployment. EU-supported infrastructure investment must therefore be accompanied by energy-pricing and utility reform.

2. Financing needs considerably exceed available public grants

National Energy and Climate Plans imply very large investment requirements. OECD assessments put estimated investment needs at approximately €4 billion for Kosovo alone and as high as €27 billion for Serbia. EU grants can de-risk projects, but the scale of investment means that public budgets and donor finance cannot be the sole source of capital. The objective must be to use EU and multilateral finance to mobilise private capital, rather than substitute for it.

3. EU alignment imposes increasing costs on delayed transition

The EU's Carbon Border Adjustment Mechanism (CBAM) entered its definitive regime on 1 January 2026 and includes electricity as well as carbon-intensive industrial products such as steel, aluminium, cement and fertilisers. This fundamentally changes the economic calculation. Failure to decarbonise is no longer only an environmental problem. Carbon-intensive electricity and industrial production increasingly affect the competitiveness of Western Balkan exports to the EU. Early evidence from 2026 already shows disruption. According to the Energy Community Secretariat, commercially scheduled electricity exchanges across EU–Energy Community borders fell approximately 25% in the first quarter of 2026, while average day-ahead prices in Energy Community markets were around €30/MWh below neighbouring EU markets. Carbon pricing and EU electricity-market integration have therefore shifted from long-term climate objectives to near-term economic policy priorities.

FUTURE OF DECARBONISATION IN THE WESTERN BALKANS

The most plausible future is neither an immediate coal exit nor continuation of the present system. A successful transition will require managing three processes simultaneously:

1. Accelerating wind and solar while strengthening grids

Hydropower will remain important but cannot carry the transition alone. of excessive hydropower dependence: dry years increase electricity-import requirements. The region therefore needs a more diversified renewable portfolio centred on solar and wind, supported by storage, interconnections and modern transmission infrastructure. Renewable auctions introduced in Serbia, Albania, Kosovo and North Macedonia demonstrate that competitive procurement can attract investment. The next constraint is increasingly grid availability and system flexibility, rather than technology cost.

2. Establishing a credible carbon-price trajectory

Almost every Western Balkan economy is considering some form of carbon pricing, but readiness differs substantially. An abrupt replication of EU ETS prices would produce significant economic and distributional shocks. Conversely, indefinitely postponing carbon pricing preserves coal's artificial advantage and increases exposure to CBAM. A gradually rising domestic carbon price, with revenues recycled into household protection, energy efficiency, renewable investment and coal-region redevelopment, would provide a more credible pathway.

3. Treating coal exit as a regional-development problem

Coal phase-out is not simply the closure of power plants. Coal mines and utilities are major employers, particularly in economically weaker regions. Earlier JRC research estimated that tens of thousands of mining and power-sector jobs across the Western Balkans and Ukraine could be affected by coal transition pathways. Where entire municipalities depend on mines, utilities and associated suppliers, workers require more than retraining courses.

A credible just transition requires:

- economic diversification before closures;
- remediation and reuse of mining land;
- support for municipalities losing tax revenues;
- social protection and pension arrangements;
- investment in replacement industries;
- reskilling linked to actual future employment.

Without these measures, political resistance to decarbonisation is economically rational rather than merely ideological.

RECOMMENDATIONS

1. Replace universal cheap electricity with targeted protection

Governments should progressively replace broad electricity-price suppression with targeted support for vulnerable households. Low-income consumers must be protected, but subsidising every kilowatt-hour consumed—including by high-income households—weakens efficiency incentives and consumes resources that could finance the transition.

2. Redirect fossil-fuel support towards transition investment

The scale of existing energy support demonstrates that fiscal resources already exist within the system. Even partial redirection of the billions currently spent sustaining fossil-based generation could finance grid modernisation, building renovation, heat pumps, renewable projects and social-transition measures.

3. EU should finance conditional on implementation capacity and reform

EU and multilateral finance should increasingly reward measurable progress in:

- coal phase-out planning;
- renewable permitting;
- electricity-market liberalisation;
- grid investment;
- carbon-pricing readiness;
- emissions monitoring;
- social-transition programmes.

Funding additional infrastructure without reforming the institutions operating it risks reproducing existing weaknesses.

4. Create national Just Transition Funds linked to carbon revenues

Carbon-pricing revenues should be visibly recycled domestically rather than disappearing into general budgets. Dedicated transition mechanisms could finance coal-region redevelopment, household energy-efficiency programmes and worker protection, increasing political acceptance of carbon pricing.

5. Treat energy efficiency as generation capacity

Reducing network losses and improving buildings can deliver energy-security benefits more rapidly than constructing equivalent new generation. Efficiency should therefore receive the same strategic priority as renewable capacity.

CONCLUSION

The Western Balkans do not lack climate targets. They lack sufficient alignment between targets, prices, institutions, infrastructure and social policy. Coal remains dominant not simply because renewable alternatives are unavailable, but because existing systems continue to protect carbon-intensive generation through regulated prices, public support and incumbent utility structures.

At the same time, the economic cost of delay is increasing. CBAM, EU market integration and future accession to the EU climate acquis will progressively remove the possibility of maintaining a low-price, high-carbon energy model disconnected from European carbon costs.

The region therefore faces a choice.

It can continue financing an ageing energy system while paying increasing environmental, fiscal and trade costs, or it can redirect existing resources toward a transition that combines renewable investment with stronger institutions and explicit social protection.

For the Western Balkans, successful decarbonisation will ultimately depend less on announcing more ambitious targets than on changing the economic incentives that continue to make failure cheaper than transition.

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