



THE SOLUTION TO PHASING OUT COAL IN THE WESTERN BALKANS?

Extending the EU ETS to the region

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SUMMARY

The new geopolitical reality has given equally new impetus for EU enlargement to the Western Balkans. However, it's often forgotten that the most acute and imminent risk in that region is the complete meltdown of the power sector. None of the plants in the Western Balkans, most being more than 40 years old, run at full capacity. Technical failures are the norm, whilst retrofitting is uneconomic and often impossible.

Power plants there emit three times more CO₂ than the EU average. As of 2024, many lignite power plants in the region – about two thirds of the total capacity – will be non-compliant with the EU Large Combustion Plant Directive, applicable under the European Energy Community Treaty.

This can no longer be ignored. Money under the new Growth Plan for the Western Balkans is helpful but unfortunately insufficient. Chinese capital and technology and Russian gas would fill the void, as has been increasingly the case within the last decade.

A promising avenue to avoid the power sector's collapse, ensure coal's phase-out, bring new low-carbon technology to the region and avoid further 'corrosive capital' could be to build upon the EU Emissions Trading System (ETS), which has been instrumental in modernising the central and eastern European power sector.

This CEPS Policy Brief boldly proposes to integrate the Western Balkans fully into the ETS, allowing temporary free allocation. Revenues under this system could be used to initially cover the emissions from existing lignite plants whilst they are still operational and later as collateral for new investments in renewable solutions. The EU ETS price will ensure the rapid closure of the old lignite plants and the collateral funds could become the missing complement to existing funding sources, such as the Growth Plan for the Western Balkans and the Western Balkans Investment Framework. Of course, very strict conditionalities would need to apply.



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SETTING THE SCENE

The countries of the Western Balkans have been in line to join the EU for a long time. Unfortunately, progress on the ground has been slow. Russia's full-scale invasion of Ukraine and the subsequent new geopolitical context has triggered the revamping of the EU's strategy towards the region to ensure a 'European' future for the Western Balkans.

Within the past 15 years, there has been steadily increasing foreign direct investment, including around trade and energy security, by [non-EU countries](#), particularly China, Russia, Turkey and the United Arab Emirates. China, within the Belt and Road Initiative, is concentrating primarily on infrastructure, mining, and energy sector co-operation. Russian investment is strategically focused on energy in Serbia and Bosnia and Herzegovina. Turkey is involved in infrastructure and banking, the UAE in real estate. Such 'corrosive capital' investments could have a further negative impact on the rule of law and the development of democracy in the region.

All of this has not gone unnoticed in the EU. Under Global Gateway, [EU-Western Balkans and Neighbourhood flagship projects](#) are being implemented and in 2021, the [Template for Staged Accession](#) was first published 'to create a more predictable and incentivising accession process while reinforcing the merit-based approach to EU enlargement and ensuring full membership as the ultimate outcome'.

Ever since, the concept has been further developed (with an updated ['2.0' version](#) being published in August 2023), leading to the European Commission's November 2023 [Enlargement Package](#) including – among other things – a new [Growth Plan for the Western Balkans](#).

THE WESTERN BALKANS POWER SECTOR IS COLLAPSING

In 2020, the carbon intensity of electricity production in the Western Balkans was triple the average carbon intensity of electricity production of the EU27¹. The situation is even worse when it comes to the carbon intensity of the region's GDP. **In 2019, Western Balkans' power plants emitted 10 times more CO₂ than those in the EU27 to create one unit of gross domestic product²**, and the situation is getting worse, all due to aging power plant stock and the ever-lower quality of domestic lignite. Not yet included are methane (CH₄) emissions from lignite mines and waste landfills.

¹ Energy Community, 'Western Balkan Energy Transition Tracker', 06/2022 (June), p. 5

² Ibid.

As if these alarming figures were not enough to contend with, **the most imminent threat is the complete meltdown of the Western Balkans electricity sector.**

From 2024 onwards, several lignite generation plants will not be able to meet the sulphur dioxide emissions ceilings under the EU's Large Combustion Plant Directive, which came into effect in 2018 as a specific obligation of the European Energy Community Treaty³. In short, all countries are going to fall foul of the obligation. This piece of environmental legislation regulates the emission levels of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and dust from existing thermal power plants. Some lignite mines are already depleted, others have been exposed to flooding and the quality of lignite that they're using has been further reduced below the optimal quality for the existing plants. Plant maintenance is constrained due to a lack of funding and electricity price controls.

Consequently, power plants are [no longer running at their designated capacity, technical failures are increasing](#), some countries have experienced occasional blackouts, and political tensions around transit have increased. **Energy intensive industries are being disconnected from the electricity supply, further adding to local unemployment and a lack of productivity.** Legal ambiguity about noncompliant power plants combined with the cost and complexity of desulphurisation have prompted operators of retrofitted plants to refrain from desulphurisation add-ons.

There is little to no scope for investments into plants more than 40 years old and approaching the end of their service life, which is the case for almost all of them. Even if this were theoretically possible, retrofitting would actually increase CO₂ emissions. The situation will only worsen the oldest and least efficient large power plants are gradually disconnected from the grid or physically collapse.

The risk of electricity price hikes or the risk of blackouts will continue to cause an increase in wood fuel usage (plus the increasing use of old tyres, municipal waste, etc.) in inefficient residential stoves. This is already a critical heating option for a more than half of households in the Western Balkans and a key factor behind [widespread energy poverty](#). An increase in wood fuel prices in 2022 helped to fuel general inflation and pushed up food prices even as governments were forced to subsidise electricity prices, one of the reasons behind the 2023 EU Energy Support Package to the region.

[According to a study commissioned by UN Environment](#), the population of the Western Balkans region is also exposed to some of the highest concentrations of air pollution in Europe, notably particulate matter (PM_{2.5}), which is principally caused by lignite power plants.

³ The Energy Community aims to extend the EU internal energy market beyond EU borders, including into the six Western Balkans countries.



Unless there is an EU or Western solution, with EU and Western technology and EU and Western money, the void will inevitably continue to be filled by China and Russia.

In [China's case](#), this means more economic dependence on Chinese technology and capital⁴. In Russia's case, this means more Russian gas, thus higher dependency on Russia, and a greater risk of disruption. The [combination](#) of China and Russia's growing influence entails less scrutiny over corruption, a greater risk of bad governance and the further penetration of Russian gas into the region's power generation market. It also means building up future liabilities as carbon will be increasingly priced – explicitly or implicitly – and there will be the risk of higher transit price rises as the [recent transit price increase by Bulgaria](#) shows. Looking to the Paris Agreement, more Russian gas sloshing around the region simply cannot be the solution.

The good news is that the total new generation capacity needed in the region will only be around 5 GWe, the equivalent of about *one fifth* of Belgium's capacity or less than 1 % of the EU's total generation capacity.

WHERE TO GO NEXT?

Understandably EU policymakers have found it difficult to tackle the matter considering the murky political and economic situation in the various Western Balkans countries, as well as the difficulty in deploying EU and other multilateral funding and the general absence of a credible plan.

The idea of a regional equivalent of the EU's [Emissions Trading System](#) (EU ETS) has been raised before but after more than a year and a half, there are still no concrete details on how to make this a viable option. The [Carbon Border Adjustment Mechanism](#) (CBAM), applicable to the Western Balkans power sector, continues to be promoted by the EU as an incentive for energy sector reform and as a means to stimulate new investment.

Stimulating incentives and investment is certainly welcome but they are no solution to the question over where the money for the new investment should come from, especially since the overall political and economic framework is not exactly appealing for new investment.

It's thus welcome that under the Growth Plan for the Western Balkans, the European Commission is proposing to offer EUR 6 billion, of which EUR 2 billion are in the form of grants and EUR 4 billion in soft loans, subject to agreement on the mid-term review of the current EU budget and subject to conditionalities aligned with EU objectives, values,

⁴ According to the Balkan Investigative Reporting Network (BIRN), China invested EUR 32 billion in the region in 2009-21. In Serbia alone, Chinese investment reached EUR 10.3 billion. However, despite inflows of Chinese capital, the EU remains the region's leading economic partner, with 70 % of total foreign direct investment and 81 % of exports.

and priorities. Additional funding is being provided by the [Instrument for Pre-Accession Assistance](#) and the 2023 Energy Support Package, both of which have helped modernise the Western Balkans energy sector.

But these measures are not targeting the specific issue of phasing out coal, yet they could help modernise the electricity sector – particularly the grid itself, an important complement to the goal of phasing out coal.



A blueprint on how the EU ETS can help achieve coal phase out and generate new investment

Perhaps surprising for some, the EU ETS, the ‘cornerstone’ of EU climate policy, may be **the way forward**. It puts both a price on CO₂ to disincentivise the use of carbon-intensive technologies (including coal) and at the same time *generates major revenues* for governments that can be spent on, for example, climate action.

For each ton of emissions, installations in sectors falling under the ETS must in principle buy emissions rights or ‘EU allowances’, equivalent to their annual levels of emitted CO₂. EU allowances are centrally issued and auctioned by governments through the European Energy Exchange. The resulting revenues belong to EU Member States.

For central and eastern European EU Member States, the [EU Modernisation Fund](#) and Article 10c of the ETS Directive have been instrumental in modernising their energy sectors.

Why Article 10c is important

Article 10c of the EU ETS Directive provides a derogation from the general rules of auctioning for electricity production. Lower-income Member States may give free allocation to installations for electricity generation. This is to support investment, which contributes to diversification, restructuring, environmental upgrading and infrastructure retrofitting, as well as support for clean technologies and the modernisation of the energy production sector.

To obtain financial support under Article 10c, Member States submit national plans comprising several proposed projects, with different models having developed over time. In Hungary, for example, operators/installations must transfer the financial value of allowances to a national fund that pays for modernisation. In Romania, EU allowances are released before investments have been undertaken. Poland had initially opted to transfer the EU allowances only when receiving evidence of activity. Unused EU allowances by a given date were auctioned by the government, generating revenues for the general budget. The Commission then assesses and accepts or rejects applications.

Article 10c has been used by many central and south-eastern Member States. During Phase 4 of the EU ETS (2021 to 2030), Article 10c is only being used by Bulgaria, Hungary, and in part by Romania.

The Modernisation Fund

Czechia, Croatia, Lithuania, Slovakia and Romania (partly) have decided to use the possibility to transfer all or parts of their Article 10c volumes to the Modernisation Fund, an offshoot of Article 10c to support lower-income Member States in their transition to climate neutrality by helping to modernise their energy systems and improve energy efficiency. The Modernisation Fund is financed from the auctioning of 2 % of the total allowances for 2021-2030, equalling EUR 48 billion at a CO₂ price of EUR 75 per tonne of CO₂.

It is Member States which then select and submit projects, the European Investment Bank (EIB) assesses them, and the final decision rests with the European Commission.

Estonia, Latvia and Poland chose not to utilise the Modernisation Fund, opting instead to auction their EU allowances as a means to generate revenues for their general budgets.



How Article 10c and the Modernisation Fund could be used to phase out coal and stimulate new investment in the Western Balkans

In short, the EU ETS will need to be made part of the Energy Community's *acquis*, achieved through a Ministerial Meeting. An essential element would be to allow for a temporary free allocation, only for phasing out coal. A precondition for this is the *full implementation* of the ETS Monitoring, Reporting and Verification provisions that are already part of the Energy Community's *acquis*.

Next, the countries of the Western Balkans would need to identify the power plants that will phase out coal and be substituted by renewable solutions. In those countries that choose to go down the Article 10c road – revised and adapted to the Western Balkans' unique circumstances and the specific goal of phasing out coal – installations can apply directly to the Commission or the Energy Community Treaty Secretariat.

Other countries may choose to put their free allowances into a 'Western Balkans Coal Phase-Out and New Investment Fund' with nationally earmarked amounts and managed by the Commission and/or the EIB. This Fund could benefit – as the Modernisation Fund does – from EU solidarity in that a small percentage of all EU allowances would be auctioned and put into the 'Coal Phase-Out Fund'.

In both cases, very strict conditions, including monitoring and enforcement safeguards, would need to be identified and implemented – though this would definitely test the administrative capacity of the European Commission and the EIB. The time between now and 2026 would be used to implement procedures and develop specific projects to help wean the region off coal.

The other piece of good news is that more than a third of the Western Balkans' power supply stems from hydropower, a low-carbon and fully dispatchable source. Adding another 20 % from solar capacity, the rest could then be filled up by geothermal, wind, biomass and – not to forget – the efficiency gains from deploying and utilising these new technologies.

We estimate that **the value of free allocation would be around somewhat less than EUR 20 billion for a period of eight years** from the start in 2026 to the full phase-out by 2034⁵. Only half of that would become available as collateral to support investment.

The other half would most likely be required for covering emissions in the early years when the old and inefficient lignite plants are still operating. **As these plants are closed over time, the remaining free allocation worth some EUR 10 billion would increasingly become available to support new investment.** Excessive 'windfall profits' from free allocation should not be expected as prices for both industrial and household customers tend to be closely monitored, if not regulated outright by governments.

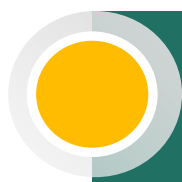
EU ETS MONEY AS COLLATERAL

There should be no illusion that major additional investment support will be needed from other sources, e.g. from the EU Growth Plan for the Western Balkans or the [EU Western Balkans Investment Framework](#), from other European and non-European governments, multilateral development banks and/or export credit agencies.

If implemented, these investments are going to make use of – and enhance further – the economic benefits of already ongoing investments into high voltage infrastructure within the Western Balkans Investment Framework. **A low-carbon and secure electricity sector is also a prerequisite for the success of the new EU Growth Plan for the Western Balkans.** Coal phase out is by far the most critical component in the Green Agenda for the Western Balkans that has been agreed at the highest political level. From an entirely financial perspective, this form of conditioned non-recourse funding will not burden the public finances of the Western Balkans countries, but it will contribute towards the security of supply, thus reducing risks and enhancing sustainability.

Furthermore, **joining the ETS would exempt the countries of the Western Balkans from the CBAM carbon border tax.** This should be considered a major step forward in bringing the region much closer towards the EU without the political nuances of full membership.

⁵ This is based on actual annual CO₂ emissions of around 60 mio tons, going down to near-zero after eight years, assuming a CO₂ price of EUR 80 t/CO₂. According to [CEE Bankwatch](#), the annual average emissions from power and heat amount to almost 57 mio tonnes annually (based on the 2015-2020 average).



CONCLUSION: CLOSING THE FINANCE GAP AND REAPING THE REWARDS

The additional ETS revenues, to be used as collateral, could become the still missing piece to push Western Balkans investment projects over the finishing line. The phasing out of coal would be guaranteed by the EU ETS price.

But achieving this will require vision, political will and, most crucially, political courage. It will not be easy, neither politically nor technically. Such a courageous step would not only demonstrate to the citizens of the Western Balkans that their European perspective is real and tangible, but also that the Western Balkans is now ready and willing to join the EU in working to achieve its ambitious climate objectives.

Indeed, there is no guarantee that the concept will work in practice. But it is absolutely worth trying. Yes, the risks may be considerable, yet the possible rewards are confounding, in terms of CO₂ reductions and – most importantly – political stability in the region.



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