POLICY BRIEF

The Energy Transition in the Western Balkans

Bottom-up Approaches for an Accelerated Structural Change

Verena Allert, Elena Nikolovska, Ognjan Pantić, Fjolla Qorri











Abstract

When people talk about coal phase-out and decarbonisation measures, they usually think of huge milestones such as the closing of thermal power plants or large-scale investments in renewable energy. The global climate crisis is considered as an immense challenge that must be addressed with massive efforts on the highest political level. While this perception is true per se, this regional roadmap for the Western Balkans introduces models on citizen, community, and municipality level which have huge potential to accelerate the energy transition. We suggest spotlighting front-runner initiatives and making regional benchmarking a prerequisite. For a truly Just Transition, cooperation with local communities is equally essential.

Imprint

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Edited by: Lindsay Munroe

Charts: Melanie Hauke (Figures 1–3)

Cover image: Jenson/Shutterstock

Published by:

Germanwatch e. V.

Office Bonn: Office Berlin:
Kaiserstr. 201 Stresemannstr. 72
D-53113 Bonn D-10963 Berlin

Phone +49 (0)228 / 60 492-0, Fax -19 Phone +49 (0)30 / 57 71 328-0, Fax -11

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December 2025

Suggested citation:

Allert, V., Nikolovska, E., Pantić, O., Qorri, F., 2025, The Energy Transition in the Western Balkans: Bottom-up Approaches for an Accelerated Structural Change.

Download this document at:

https://www.germanwatch.org/en/93359

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This publication is financially supported by the Federal Ministry for Economic Cooperation and Development. Germanwatch is responsible for the content of this publication.

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List of acronyms

UNFCCC COP United Nations Framework Convention on Climate Change; Conference of Parties

ERO Energy Regulatory Office

ESCO Energy service company

RCP Regional Climate Partnership for the Western Balkans

WB6 Western Balkans 6

EU European Union

NECPs National Energy and Climate Plans

ETS Emissions Trading Scheme

CBAM European Carbon Border Adjustment Mechanism

GHG greenhouse gas

RES renewable energy sources

TPP thermal power plants

NDCs Nationally Determined Contributions

MRV monitoring, reporting and verification system

KEEF Kosovo Energy Efficiency Fund

NERP National Emission Reduction Plan

DSO distribution system operator

JTR The Just Transition Roadmap

MFI Multilateral Financial Institution

CSF Civil Society Forum from Berlin Process

1 Introduction

This Roadmap is being written at a time of diverse challenges. The classical world order is in turmoil, and the negative consequences of the climate crisis, which have a greater impact year on year, also affect Europe, providing a taste of tomorrow's world. The Balkan Peninsula, which is often perceived to be a region of crises, plays a key role in transforming Europe into the first climate-neutral continent by 2050; the centrepiece of the von der Leyen Commission's European Green Deal. While we do not know the results of this year's UNFCCC COP in Belem yet, it is obvious to the international community and citizens alike that innovative solutions to mitigate climate change are desperately needed. Noticeably, the outlook for best practices in climate mitigation measures in the Balkans does not appear to be very promising at first glance. Serbia is facing its deepest political crisis since the end of the Milošević regime, North Macedonia's EU accession path is being stalled from EU member states that continue to challenge the country's official name, and Kosovo is fighting for international recognition and trying to normalise its relationship with Serbia, which is also a pre-condition for accession to the European Union. Nevertheless, flagship initiatives do exist – models that have the innovative potential to fight climate change and create spillover effects for the entire region.

The objective of this Roadmap is to bring about a change in perspective. The aim is to move away from the image of a region of multiple crises and instead navigate public attention towards initiatives at local and municipality level that create change. Recognising each country's individual legal and economic structures, this paper argues that good practice models from Serbia, Kosovo and North Macedonia that aim to mitigate climate change and have success at this are worth replicating in the other countries of the region and beyond. Balkan governments and the donor community should make benchmarking with neighbouring countries a prerequisite. An instrument that could further strengthen such favourable cross-border collaboration among climate-leading municipalities is the Regional Climate Partnership for the Western Balkans.

This policy brief is the result of a project that has been operating "on the ground" for three years, and its authors come from the three countries presented. The initiatives we present in this paper are also the result of a cross-border learning process with local communities and a broad range of stakeholders from CSOs, businesses and individuals from the respective countries. We have compiled their efforts and ideas in a Regional Roadmap that can serve decision-makers on their further pathways to climate neutrality. Our analysis sheds light on bottom-up approaches, as well as practical aspects of the energy transition; it mirrors our work with various stakeholders on community level.

This Roadmap starts by providing an overview of the actual situation of each country's energy transition, in order to understand both similarities and national differences. Evidently, all three countries still heavily rely on coal for their energy production. In the following chapter, we present good practice examples from each country, where each of them excels at. In conclusion, we provide policy recommendations in the last chapter. And we outline what we believe can be addressed in the short term and what should remain on the list for the longer perspective. By the end of this paper, we hope to create room for discussion between civil society, political stakeholders and businesses. Our intention is to initiate dialogue and present solutions that, although they already exist, do not yet receive the attention they deserve. Our ultimate aim is to scale up good initiatives in their national and regional outreach.

2 Existing binding international contracts

2.1 EU Acquis Communautaire

The energy transition in the Western Balkans is not a stand-alone process but is embedded in international agreements. All six countries (WB6) have applied for EU membership, five of them are candidate countries, and Kosovo has the status of a potential candidate. As such, the countries are obliged to meet the key criteria for accession – the so-called 'Copenhagen Criteria' – and, ultimately, candidates must adopt, implement and enforce the EU Acquis Communautaire. The Acquis consists of 35 chapters, with four chapters compiled in a thematic cluster titled "Green Agenda and sustainable connectivity," which is central for the energy transition in the Western Balkans. **Chapter 15 targets the core energy policy** and "(...) objectives include the improvement of competitiveness, **security of energy supplies** and the protection of the environment." **Chapter 27 defines the environmental policy** that "(...) aims to **promote sustainable development and protect the environment** for present and future generations. It is based on preventive action, the polluter-pays principle, fighting environmental damage at source, shared responsibility and the integration of environmental protection into other EU policies."

Consequently, if a country applies for membership, it also needs to align its energy and climate policies to EU standards. The Western Balkans are in the process of implementing the respective chapters by adopting national climate and environmental protection laws.

In addition to the reform imperatives derived from the standardised accession process, the Western Balkan states must also comply with the new and ambitious climate policy that the EU set itself in 2020 under the first von der Leyen Presidency from 2019-2024 as part of the sustainability framework widely known as **the European Green Deal**. The EU Green Deal comprises the European Climate Law, which contains the commitment to become the first climate-neutral continent by 2050 and reduce at least 55 per cent net greenhouse gas emissions by 2030 compared to 1990 levels. As a response to the European Green Deal, leaders of the Western Balkans endorsed the Leaders' Declaration on the **Green Agenda for the Western Balkans** during the Sofia Summit held on 10 November 2020. Milestones of the Sofia Summit are to support and accelerate changes and processes in the region with the overarching goal of addressing climate change.

2.2 Sofia Declaration on the Green Agenda for the Western Balkans

The Green Agenda of the Western Balkans rests on five pillars, the first of which targets climate, energy and mobility. For the energy transition, the first pillar is of utmost importance, as it defines the global goals for the Western Balkans in their shift to renewable energy sources. The Western Balkan countries have committed themselves to aligning with European climate goals, with the vision of achieving climate neutrality by 2050. One important milestone on that path is the commitment to develop integrated **National Energy and Climate Plans (NECPs)** with clear measures designed to reduce greenhouse gas emissions. By doing so, the countries of the Western Balkans mirror climate strategies that are also mandatory for EU Member States. In a similar vein, the WB6 countries have also agreed to align with the **EU Emissions Trading Scheme (ETS)** and to introduce **carbon-pricing instruments** as an important initial measure to reduce export tariffs imposed under the European Carbon Border Adjustment Mechanism (CBAM); the levy becomes effective as of 2026. The EU

ETS is based on a "cap and trade" principle and refers to the limit set on the total amount of GHG that can be emitted, thereby obliging companies to monitor and report their emissions (and surrender certificates they need to acquire). Ultimately, the Western Balkan states aim to gradually join the EU ETS. Like Member States, the WB6 should review and revise all relevant legislation to support the progressive decarbonisation of the energy sector and assess its socioeconomic impact, ensuring that **the transition is a just one**. This also implies addressing **energy poverty**. Besides increasing their share of renewable energy sources, the countries are urged to prioritise **their energy efficiency** and improve it in all sectors, including the full enforcement of the Energy Performance of Buildings Directive. WB6 countries should gradually **phase out coal subsidies** and actively participate in the Coal Regions in Transition initiative. **Intra-regional cooperation** is of great importance for a region made up of individual countries with very small territories compared to their European counterparts, as demonstrated by the Green Lanes/Corridors initiative. Intra-regional cooperation is about combining energy sources, transmitters, as well as **climate change adaptation measures** with disaster risk reduction.

2.3 Treaty on the Energy Community

Finally, the Western Balkans Green Agenda also refers to obligations derived from the Energy Community framework, which is also a binding agreement already signed by the WB6 states.

The Energy Community is an international organisation that brings together the EU and 9 neighbouring EU candidate or potential candidate countries to create an integrated regional energy market based on a legally binding framework. The key objective of the Energy Community is to extend the EU internal energy market rules and principles to countries in southeast Europe, the Black Sea region and beyond based on a legally binding framework. It has nine contracting parties: Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Georgia, Moldova, Montenegro, Serbia and Ukraine. One integral part of the mission of the Energy Community Treaty is to improve the environmental outlook in the region and promote the use of renewable energy and energy efficiency.² The energy community treaty is very detailed and specific in its obligations and contains deadlines about EU directives that should be adopted by the individual governments. The Energy Community Treaty is already binding for the WB6 countries, even though the accession process is still ongoing.

3 The energy transition in the Western Balkans by country – Kosovo

3.1 The role of coal, gas and Kosovo's traditional energy situation

Kosovo's traditional energy mix has long been dominated by lignite, oil and biomass, reflecting a heavy dependence on fossil fuels across both electricity generation and household energy use. This dependence is underscored by the fact that coal-fired power plants still account for over 77 per cent of domestic electricity production, one of the highest dependencies in all of Europe. Air pollution

¹ Directorate-General for Climate Action 2025, <u>About the EU ETS</u>, last accessed on 9 May 2025.

² Energy Community, <u>The Energy Community Treaty</u>, last accessed on 9 May 2025.

has reached critical levels, posing a serious threat to public health, the environment and the country's energy security. Kosovo continues to fall short of its emissions reduction targets, and the implementation of air quality measures remains slow and uneven across the country. Nationwide levels of fine particulate matter (PM2.5) consistently exceed World Health Organization recommendations, driven by outdated coal-fired power plants, widespread use of solid fuels for heating and emissions from aging vehicles. The Energy Community also noted in its latest "Energy Transition Tracker" that Kosovo continues to fall short in electricity and transport renewables, and, critically, air pollution from coal-fired plants remains alarmingly high, with Kosovo's 2023 NO_x emissions reaching 2.73 times the ceiling, and Kosova B's dust emissions exceeding the limit by over 900 per cent.³ The health consequences are severe, with around 760 premature deaths annually attributed to air pollution, while the total estimated economic costs due to the health effects of air pollution in Kosovo range from EUR 37 million to EUR 158 million a year.⁴

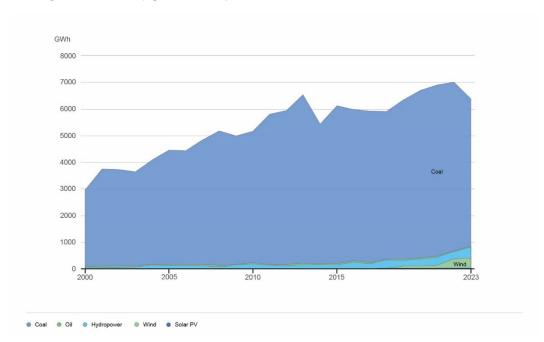


Figure 1: Electricity generation by source, Kosovo, 2000-2023

Source: IEA, Energy Statistics Data Browser

3.2 Kosovo's alignment with international frameworks

Although Kosovo has made progress in its energy transition and climate policies – particularly in aligning with EU accession requirements and the European Green Deal – its pathway towards EU integration remains constrained by uneven implementation. **Kosovo** has made some institutional progress in aligning with the EU Acquis Communautaire and the Energy Community Treaty.⁵ One key element of its progress is **the adoption of the Law on Climate Change** in January 2024, which

³ Bankwatch, Comply or Close Report 2023, last accessed on 23 May 2025.

⁴ IPA II, <u>EU Support to clean air in Kosovo</u>, 2019, last accessed on 23 May 2025.

⁵ Energy Community, <u>The Energy Community Treaty</u>, last accessed on 23 May 2025.

introduced climate governance structures such as monitoring mechanisms, a National Council for Climate Change and plans for a long-term decarbonisation strategy.⁶

The Law on Climate Change outlines state responsibilities for climate mitigation, monitoring and compliance with international agreements. It ensures Kosovo's alignment with EU climate regulations, the governance framework of the Energy Union and Climate Action, and the EU Directive establishing a greenhouse-gas emission allowance scheme.

Kosovo's Law on Climate change is a major breakthrough in terms of laying the groundwork for concrete measures, which need to be taken into consideration by operators and sectors that directly or indirectly affect climate change. Moreover, the law regulates the state mechanism's National Council for Climate Change (NCCC) – established by the government in 2022¹⁰ – composed of seven Ministers and tasked with drafting and/or supplementing national and local policies. The law also fosters the implementation of national strategies and action plans regarding climate change, and ensures that they align with the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement and the Western Balkans Green Agenda.

The decarbonisation and promotion of renewable energy sources is a strategic objective within the framework of the Energy Strategy of the Republic of Kosovo 2022-2031. As a measure within the specific objective, Kosovo plans to introduce a national emission trading scheme (ETS), with a gradual minimum price increase until integration into the pan-European market and the EU ETS. Revenues collected from this system will be one of the sources going towards a Just Transition Fund. Exactly what these funds will be used for is still to be determined, but this may include promoting renewable energy sources (RES), training and retraining the workforce, energy-related projects for vulnerable consumers, etc. Implementation is to start in 2025, with the aim of achieving EU ETS integration by 2031, thus contributing towards bringing Kosovo closer to the EU and better aligning with its policies and standards on decarbonisation. However, concrete steps in this regard have yet to be taken to prevent potential negative consequences from CBAM once it enters into force in 2026.

Kosovo has passed a Law on Environmental Impact Assessment, which requires public and private projects to assess their environmental impact prior to implementation. ¹² Additionally, Kosovo's Ministry of Economy has drafted the National Energy and Climate Plan (NECP), ¹³ which directly addresses the objectives in Chapter 27 from the EU Acquis. The draft NECP provides an overview of the current situation in Kosovo and determines what measures need to be taken in future in the following areas (dimensions):

The decarbonisation dimension of the draft NECP focuses on implementing policies and measures across all sectors to reduce greenhouse gas (GHG) emissions and sustainably increase the share of renewable energy in total energy consumption. Approximately 87 per cent of GHG emissions in Kosovo stem from fossil fuel combustion in the energy sector, particularly in energy transformation, industry and transportation. A central objective is to drive a transition toward low-carbon technologies by expanding renewable energy in the generation mix, implementing energy efficiency measures across sectors and gradually phasing out fossil fuels. Renewable energy sources are

⁶ Republic of Kosovo, <u>Law No. 08/L-250 On Climate Change</u>, last accessed on 23 May 2025.

⁷ European Parliament, <u>Commission Implementing Regulation (EU) 2018/2066</u>, last accessed on 24 May 2025.

⁸ European Parliament, <u>Regulation (EU) 2018/1999 on the governance of the energy union and climate action</u>, last accessed on 24 May 2025.

⁹ European Parliament, <u>Directive 2003/87/EC of the European Parliament and of the Council</u>, last accessed on 24 May 2025.

¹⁰ Republic of Kosovo, <u>Government decision No. 07/54 on 12 January 2022</u>, last accessed on 24 May 2025.

¹¹ Ministry of Economy, Republic of Kosovo, <u>Energy Strategy of the Republic of Kosovo 2022-2031</u>, last accessed on 24 May 2025

¹² Republic of Kosovo, <u>Law No. 03/L-214 on Environmental Impact Assessment</u>, last accessed on 23 May 2025.

¹³ Republic of Kosovo Consultation Platform. <u>Public consultation of the Draft-National Energy and Climate Plan of the Republic of Kosovo 2025-2030 Plan</u>, last accessed on 23 May 2025.

therefore integral to this dimension. Furthermore, it highlights the importance of cost-effective energy efficiency measures in shaping energy policy and guiding investment decisions. The majority of these measures target the renovation of buildings to improve their energy performance. The decarbonisation dimension also includes interventions in other sectors, such as transport, contributing to broader systemic efficiency.

The draft NECP's energy security component is grounded in the goals and policies of the Energy Strategy (2022–2031). While Kosovo, like other countries in the region, has a relatively balanced electricity production and consumption profile, key challenges remain. These include ensuring adequate capacity to meet peak demand – especially during winter – and fulfilling reserve capacity requirements. Market liberalisation and regional integration are expected to ease supply-side constraints, although achieving a sustainable and secure electricity supply will still require overcoming significant structural challenges.

A well-integrated power system is fundamental to developing and expanding the electricity market. While EU Member States aim to achieve interconnection capacities of at least 15 per cent of peak load by 2030, Kosovo far exceeds this benchmark. Its interconnection capacity is several times greater than its peak load, giving it a top position among the top three countries in Europe in respect to its ratios of interconnection capacity to installed generation capacity and interconnection capacity to peak demand. A near-term strategic objective is market coupling with Albania through the joint use of the Albanian Power Exchange (ALPEX), which is headquartered in Tirana. With ALPEX fully operational in both markets and a robust interconnection infrastructure in place, congestion is expected to be minimal, resulting in negligible price differences between the two countries.

The draft NECP measures align closely with EU Chapter 15 (Energy) by **advancing market liberalisation, regional integration, and energy security**, while also supporting Chapter 27 (Environment and Climate Change) through **actions that reduce GHG emissions, promote renewables and improve energy efficiency**. These interventions directly contribute to Kosovo's EU accession efforts by addressing core energy and environmental obligations.

Another step towards aligning with the EU acquis, particularly Chapter 15, is the establishment of the Energy Regulatory Office (ERO), an independent body tasked with overseeing market regulation. ¹⁴ The ERO monitors annual reports and energy systems for district heating, electricity and gas, and aims to make sure the market is transparent.

3.3 Challenges in the uptake of renewables

Kosovo has seen a positive momentum with **the launch of its first solar auction in March 2024**, which aims to secure 100 MW of solar PV capacity and attract private sector investment in clean energy. Additionally, the adoption of a new Renewable Energy Law, aligned with the EU's Renewable Energy Directive (RED II), lays the foundations for further market integration and grid access for renewables. As of early 2025, renewable energy capacity remains modest, with about 150 MW from small hydropower, solar and biomass installations. However, deeper transformation is hindered by grid bottlenecks that restrict new connections and by limited financing options that prevent many developers from accessing capital. Grid bottlenecks remain a key challenge; the existing grid infrastructure is often unable to handle the influx of renewable energy, resulting in transmission constraints that limit the potential of these projects.

While the solar auction is a milestone, delays in launching the upcoming 75 MW wind auction could echo past setbacks when projects were postponed or downsized due to procedural bottlenecks.

¹⁴ Republic of Kosovo, Energy Regulatory Office, last accessed on 24 May 2025.

Meanwhile, adaptation strategies remain underdeveloped, with key plans pending approval and no binding 2050 climate neutrality target, both of which are central to the Sofia Declaration. In 2023, Kosovo emitted 8.38 million tonnes of CO₂, averaging 4.9 tonnes per capita ¹⁵ – close to the EU's 5.6 tonnes per capita despite Kosovo's smaller and less developed economy. This signals heavy reliance on carbon-intensive energy sources, mainly fossil fuels like coal, resulting in inefficient energy use. At these rates, achieving climate neutrality is unrealistic because Kosovo lacks the scale of clean energy infrastructure and carbon offset mechanisms necessary to balance emissions. Without urgent reforms to decarbonise its energy sector and improve efficiency, Kosovo's current emissions trajectory will make net-zero targets unattainable, especially as EU climate ambitions tighten and development pressures rise.

3.4 Energy poverty

Kosovo's energy sector currently finds itself at a critical juncture, grappling with the dual challenges of transitioning towards decarbonisation while addressing the deep-rooted issue of energy poverty. ¹⁶

Energy poverty in Kosovo remains an underexplored and pressing issue, due to a lack of clear and comprehensive definitions in legislative and policy frameworks. According to data from the Kosovo Agency of Statistics (KAS), **35 per cent of households in Kosovo struggle to pay their utility bills at least once in a year,** ¹⁷ **while 13.6 per cent of households cannot afford to sufficiently heat their homes when needed.** ¹⁸ This situation was exacerbated in 2022 and 2025, when energy tariffs increased by 16.1 per cent, impacting households consuming more than 800 kWh per month. Existing measures, such as general subsidies and reduced tariffs, lack targeting and exclude large groups of people who are energy vulnerable. The absence of a comprehensive register of vulnerable consumers continues to limit the precision and effectiveness of interventions.

4 Energy transition in the Western Balkans by country – Serbia

4.1 The role of coal, gas and Serbia's traditional energy situation

Serbia primarily relies on **low-quality lignite for electricity production**. As nearly 70 per cent of electricity is produced by thermal power plants, this causes huge challenges regarding air pollution. Serbia ranks first in Europe in terms of harmful effects of pollution, with the most polluted air, and ninth in the world, according to an extensive study by the Global Alliance for Health and Pollution (GAHP). ¹⁹ Thermal power plants regularly breach emission limits agreed through the National Emission Reduction Plan (NERP). In 2023, SO2 emissions from coal power plants in Serbia, encompassed by the NERP, increased compared to the previous two years. The most critical emissions are SO2

¹⁵ Our World in Data, <u>Kosovo: CO2 Country Profile</u>, last accessed on 24 May 2025.

¹⁶ Bankwatch 2023, "The Energy Sector in Kosovo", CEE Bankwatch Network, last accessed on 23 May 2025.

¹⁷ Kosovo Agency for Statistics, <u>Results of the Survey on Household Budget</u>, 2022, last accessed on 25 May 2025.

¹⁸ Kosovo Agency of Statistics, <u>Results of the Survey on Income and Living Conditions (SILC)</u>, 2023, last accessed on 25 May 2025

¹⁹ Danas, <u>Blic - Serbia ranked first in Europe in mortality due to pollution</u>, last accessed in April 2025.

(sulphur dioxide). In 2023, SO2 emissions exceeded the NERP ceiling by 5.4 times.²⁰ As for other sources, most remaining electricity needs are covered by hydroelectric power plants.

When it comes to other fossil fuels in the mix, the main challenge is Serbia's **dependency on Russian gas** and **unbundling issues within the gas sector**.

While the legal and institutional framework for the unbundling of the gas sector is in place, its implementation is proving to be sluggish. ²¹ In its latest Country Report, the European Commission (EC) criticises Serbia's dependence on Gazprom as well as Russia's majority ownership of Serbia's critical infrastructure and oil industry. Furthermore, the EC states that Serbia should allow non-discriminatory third-party access to its gas network. The wholesale market in Serbia is the most monopolised market in the Energy Community. The monopolistic supplier, Srbijagas, provides all imported quantities, mainly from Gazprom, under a long-term contract concluded that runs until 2025, covering approximately 75 per cent of the country's annual needs. In Serbia, gas is primarily important for industry: two thirds of the gas used in Serbia is used in this sector. It is also the most frequently used fuel in major district heating systems within the country, as well as in a lower percentage of individual households. Although initial steps towards the diversification of supply have been taken, Serbia primarily relies on Russian gas. An agreement has been reached with Azerbaijan concerning gas imports until the end of 2026, although the amount of gas covered by this agreement would only cover around 13 per cent of Serbia's needs. ²²

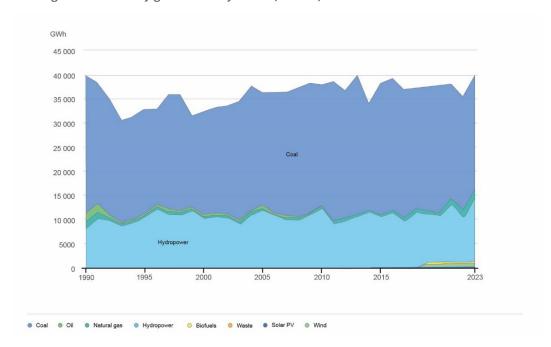


Figure 2: Electricity generation by source, Serbia, 1990-2023

Source: IEA, Energy Statistics Data Browser

²⁰ Bankwatch, Comply or Close: Six years of deadly legal breaches by Western Balkan coal plants, last accessed in April 2025.

²¹ European Commission, <u>Serbia 2024 Report</u>, last accessed in April 2025.

²² Ibid.

Alignment of national policies with 4.2 international obligations

The strategic and legal framework in Serbia for meeting international obligations regarding decarbonisation lacks clarity concerning the phasing out of coal and certain aspects of related ambitions in Serbia. The international legal obligations are addressed in national measures. The most important are the Serbian Law on Climate Change, the Low Carbon Development Strategy, the Draft Spatial Plan and the Serbian NECP. The NECP intention is to achieve short-term and longterm climate goals and implementation plans for the 2021-2030 period. A more detailed look into these pieces of strategic and legal framework reveals a lack of alignment, as well as a lack of ambi-

The adoption of the Climate Law in Serbia was due in 2018, but was not actually passed until 2021. The law regulates the limits on greenhouse gas (GHG) emissions, with a system for monitoring, reporting and verification of GHG emissions due to be introduced. In addition, its goal is to arrange systems for adaptation to changed climate conditions, as well as systems for monitoring and reporting the implementation of the Low Carbon Development Strategy. The law only partially transposes EU legal acts related to the Emissions Trading System (EU ETS) and only the related provisions to the monitoring, reporting and verification system (MRV) for GHG emissions.²³

Additionally, Serbia was very late in adopting the Low Carbon Development Strategy, and the action plan is still awaiting approval. The Strategy does not envisage reaching carbon neutrality by 2050, and the authors of the document state that, with currently available technologies and in an economically profitable way, the goal is practically impossible to achieve. The strategy has assessed that, with currently available technologies, the maximum possible reduction in GHG emissions compared to 1990 would be 76.2 per cent. In addition, the Strategy predicts that Serbia will continue using coal until 2050. Most of the decarbonisation-related measures are planned for after 2030.²⁴ Ultimately, the Low Carbon Development Strategy does not align with the NECP or with targets adopted at the Energy Community level regarding the reduction of GHG emissions and share of renewables in gross final energy consumption by 2030.

The lack of alignment in terms of a clear vision for decarbonisation is also evident in Serbia's draft Spatial Plan for the period 2021-2035, which is yet to be adopted. The Spatial Plan determines the strategic goals and priorities of the country's spatial development, directing the overall social and economic development and preserving natural resources and cultural heritage. It is followed by spatial plans of a narrower scope, which include smaller territorial units, which must be harmonised with the national Spatial Plan. Despite its decarbonisation commitments, Serbia's draft national Spatial Plan includes new thermal power plants.

Serbia has also taken on the obligation of developing an Integrated National and Energy Climate Plan (NECP). This defines climate goals for 2030 and contains an overview of the current state of key policies and appropriate measures to address its five dimensions: 1) decarbonisation (greenhouse gas emissions and renewable energy), 2) energy efficiency, 3) energy security, 4) the internal energy market and 5) research, innovation and competitiveness. When it comes to Serbia's NECP, which was adopted in 2024, the climate target is in line with the 2030 targets set by the Energy Community. The overall renewable energy target for 2030 is subdivided into sectorial targets for electricity (45 per cent), transport (7 per cent), and heating and cooling (41.4 per cent). However, the NECP does not plan for Serbia to be climate neutral by 2050. In a best-case scenario Serbia will

²³ Coalition 27, Chapter 27 in Serbia: Years go by, we stand still, last accessed in April 2025.

²⁴ Ibid.

achieve an 80 per cent to 90 per cent reduction in greenhouse gas emissions compared to 1990.

Bearing in mind the situation concerning the strategic and legislative development for decarbonisation, the pending obligations are evident. There is no climate-neutral scenario envisaged for 2050 in any of the aforementioned documents. According to the recommendations provided by the European Commission in its latest Country Report, the most important obligations for Serbian authorities are to set a coal phase-out date as an effective means to comply with Energy Community law and to update its Low Carbon Development Strategy to align with the EU's climate neutrality target. In addition to this, Serbia also has to prepare and submit a new National Determined Contribution under the Paris Agreement.²⁵

Although Serbia has continued to align with the EU Acquis on energy efficiency, further alignment with the Energy Performance of Buildings Directive and Renewable Energy Sources Directive is still required. According to the European Commission, the institutional capacities for implementing energy efficiency measures should also be expanded. For example, Serbia has introduced energy poverty into its legal framework and recently introduced new subsidy schemes for vulnerable consumers. They offer the recovery of 90 per cent of the household renovation costs by the line ministry and local self-governing body. However, these calls need to be adjusted in terms of an adequate targeting of energy-vulnerable consumers and consumers faced with energy poverty. So far, these calls reveal some level of institutional weaknesses. On the one hand, the criteria for qualifying as energy-vulnerable consumers do not adequately cover all citizens facing this issue. On the other hand, larger funds (up to 10 times more) are offered for energy efficiency renovation schemes that target the general population, which means that well-situated citizens can access public funds for renovating their households, while the vast majority of citizens facing energy poverty cannot access these funds.²⁷

This is an obvious failure for the implementation of a just transition that does not overlook vulnerable people and reveals that much more diligence and adequate funds are required to properly address energy poverty.

4.3 Challenges in the uptake of renewables

With fossil fuels still dominating the energy mix and hydropower offering the most capacity among renewable energy sources, other renewable energy sources are still not being properly implemented in Serbia. It is worth mentioning that hydropower often incurs costs regarding biodiversity, especially considering that Serbia's hydroelectricity power plants rely on infrastructure developed in the 20th century. According to data provided by the Energy community, the share of solar thermal, solar PV, wind and geothermal renewable energy within the gross available energy in 2021 was only 0.6 per cent. However, the introduction of new legislation in the renewable energy sector has led to a modest increase in the share of renewables.

When it comes to renewable energy projects, changes in the system were introduced by adopting a Law on Renewable Energy Sources, as well as amendments to the Law on Energy. New support systems were also introduced. One of the most important steps forward is the introduction of a completely new, market-oriented incentive model, which appears as a system of i) **market premiums**

²⁵ European Commission, <u>Serbia 2024 Report</u>, last accessed in April 2025.

²⁶ Ibid

²⁷ RES Foundation, <u>Who owns energy efficiency</u>: <u>Who benefits and who pays? Clean Energy for Some Citizens</u>, last accessed in April 2025.

and ii) feed-in tariffs.²⁸ In August 2023, auctions for the market premium for renewables in Serbia were conducted for the first time for solar and wind power plants. A total of 11 registered investors qualified for the competition, collectively for both types of renewables. This was a good start but still leaves a lot of room for improvement.²⁹

The concepts related to citizen energy, which are vital for the decentralisation and decarbonisation of Serbia's energy system, are in the initial stages of implementation, primarily through the introduction of prosumers. Although this concept was introduced in 2021, the development of prosumers in Serbia faces a number of regulatory, technical and economic challenges. Although the legal framework allows prosumers to formalise their status, implementation in practice has been slowed down somewhat by complex procedures, imposed limitations on the maximum power of prosumer power plants, and assessments of the insufficient development of the existing electricity infrastructure. In addition, concepts for citizen energy communities were only introduced into the legal framework last year, while by-laws are pending. Two currently existing energy cooperatives are implementing pioneering local projects that rely on investment crowdfunding and grants and face many administrative challenges, primarily related to the distribution system operator. There is plenty room for improvement here, since Serbia has 30 per cent more solar energy potential than countries in Central Europe, with more than 2,000 hours of sunshine per year.

Energy Transition in the Western 5 **Balkans by Country – North** Macedonia

The role of coal, gas and North 5.1 Macedonia's traditional energy situation

North Macedonia remains highly dependent on coal for supply security, with the main production of electrical energy coming from Bitola and Oslomej/Kičevo thermal power plants (TPP). These plants rely on a combination of limited domestic coal reserves and imports, with installed capacities of 699 MW (Bitola) and 125 MW (Oslomej). In 2024, thermal power plants that run on fossil fuels (gas, oil and coal) had a share of 58.97 per cent in the electricity production, while renewables (including hydropower) had a share of 41.03 per cent. TPP Bitola and TPP Oslomej still play a key role for the country's energy security and in energy production. Because those coal-fired plants are very dated, they very often have breakages causing interruptions in electricity production, meaning that the country is also a net importer of electricity. Just in June 2025, TPP Bitola B2 was out of operation following a fire, while B1 and B3 were shut down because of servicing. This put the country's biggest power plant out of operation for a full week. In 2024, net electricity imports amounted to 11.03 per cent of total gross electricity consumption.30

TPP Bitola and TPP Oslomej have also been the biggest emitters of SO2 and NOX emissions, and of dust, in the five years since North Macedonia's National Emissions Reduction Plan NERP came into force. The newest Comply or Close report³¹ revealed that the chimneys of Bitola B1 & B2 and Bitola B3 were still the highest contributors in 2024. They emitted 62,625 and 22,314 tonnes of SO2

²⁸ RERI, <u>Analysis of the Law on Renewable Energy Sources</u>, last accessed in April 2025.

³⁰ Regulatory commission of the Republic of North Macedonia, <u>2024 Annual report</u>, last accessed in April 2025.

³¹ Bankwatch, Comply or Close: Six years of deadly legal breaches by Western Balkan coal plants, last accessed in April 2025.

respectively. The SO2 emissions from Bitola B 1 & B2 were a staggering 11.4 times higher than the plant's individual ceiling, and from Bitola B3 they were 9.4 times higher than the individual ceiling.

Natural gas as a source of home heating is not a widespread option for households. According to the 2021 Census, altogether 550 dwellings were using gaseous fuels as central or stove heating. The distribution network is less developed, so only urban households along the main existing gas network in several cities may have access to piped natural gas. The government plans two large gas/hydrogen-ready power plants: an 800 MW plant in Negotino, and a 250-300 MW plant in Bitola to help replace existing coal/fuel-oil generation and align with the plan to phase out coal by 2030. However, adding new gas plants could lock in fossil fuel dependency for 20 to 30 years and methane leakage (CH₄) from gas infrastructure can offset much of the CO₂ benefit, since CH₄ is more than 80 times stronger than CO₂ over 20 years. If Macedonia expands its full gas infrastructure as intended and uses it heavily through the 2030s, national CO₂ emissions will rise significantly – contradicting climate neutrality targets.³²

Electricity generation by source, North Macedonia, 1990-2023

Source: IEA, Energy Statistics Data Browser

5.2 North Macedonia's alignment with international frameworks

The Republic of North Macedonia, as a member state of the United Nations Framework Convention on Climate Change, has committed to a just transition to an environmentally sustainable economy in accordance with the obligations of the Paris Agreement. It includes the aim of limiting the global average temperature increase to 1.5°C, and the 2030 Agenda, which offers a common model for global action to achieve the Sustainable Development Goals, aimed at eradicating poverty and protecting the planet by 2030. North Macedonia signed the Paris Agreement in 2016, and the Parliament

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³² Nomagas website, <u>Completed and Future Projects</u>, last accessed in August 2025.

ratified it in 2017. As a party to the UN Framework Convention on Climate Change North Macedonia submits a revision of its Nationally Determined Contributions (NDCs) every five years.

As a candidate country for full membership of the European Union (EU), the Republic of North Macedonia is facilitating the gradual integration of North Macedonia into the European energy market.

In order to harmonise with EU climate legislation, North Macedonia has been in the process of drafting a climate action law since 2019. The **final draft of the law on climate action** was published for consultation in the national electronic register of regulations in 2022.³³ The climate action law introduces the Monitoring, Reporting and Verification (MRV) regulation, governance and partly licenses for stationary emission sources. This is very important, since **it is the first time the country has established a mechanism for monitoring, reporting and verification of GHG emissions in the country** within the Macedonian Environmental Information Centre of the Ministry of Environment and Physical planning. Defining a national monitoring and reporting mechanism is crucial, as it creates a clear division of roles and responsibilities in institutions at both the institutional and municipal levels concerning the obligation to collect data and prepare an annual greenhouse gas inventory. **The draft law also defines a carbon tax as a mechanism for accelerating the energy transition, as well as financing climate action measures.** The introduction of this measure sends a clear signal to carbon-intensive sectors that they must start the transition to clean technologies and to citizens that both large polluters and individuals share the same obligations to achieve climate goals and prepare the country for the EU Emissions Trading System (EU ETS).

The Climate Action law also contains a climate target and confirms the Paris Agreement commitment to limit global warming to below 1.5 degrees Celsius, as well as support for efforts towards a climate-neutral Europe by 2050. With this provision, the commitments from the long-term climate action strategy and the enhanced NDCs to reduce greenhouse gas emissions on the ground to net zero by 2050 become a legal obligation of the state. However, the law on climate action is still not adopted. One remaining challenge in the implementation of climate legislation is that none of the strategic documents reflect what the impact of the country's abovementioned gasification plans will have on greenhouse gas emissions and whether these plans will make it impossible to reduce greenhouse gas emissions by more than half by 2030.

North Macedonia adopted a new Energy law in May 2025 that transposes a large part of the European energy legislation. This means a better definition and improvement of the legal regulation in the energy sector. The law regulates citizen energy communities and active consumers for the first time, which allows citizens and communities to become electricity producers. The law also pays more attention to vulnerable consumers and energy poverty with a separate article regulating vulnerable consumers and financial aid available. For companies and businesses, it is important that the section on electricity storage has now been regulated in detail, due to the currently limited capacity of the electricity grid. The law also provides an obligation for municipalities to annually report on measures and results in the area of energy and energy efficiency within their competences. However, the successful implementation of the law will depend on the numerous by-laws that need to further regulate and clarify certain aspects in detail. The energy law lacks alignment with the country's climate goals. Therefore, North Macedonia established a dedicated Ministry of Energy, Mining and Mineral Resources in 2024, and by doing so increased capacities in the Energy sector to draft and implement a growing number of EU regulations.

One huge challenge in North Macedonia is that buildings and houses have zero or poor thermic insulation. Research conducted in 2017 found that more than 90 per cent of homes in the capital Skopje do not have any thermic insulation on their façade and roofs.³⁴ Laws and by-laws on

³³ National electronic register of regulations, <u>Law on Climate Action</u>, last accessed in April 2025.

³⁴ UNDP, Skopje se zagreva report, last accessed in April 2025.

energy efficiency clearly define the sector, but implementation has stalled due to overlapping responsibilities among institutions, agencies, municipalities, as well as outdated software systems. A dedicated fund for energy efficiency is still not functional.

North Macedonia adopted its first National Energy and Climate Plan (NECP) in June 2022 as requested for all pre-accession countries, which is currently under revision. In the decarbonisation pillar, the goal is to reduce greenhouse gas (GHG) emissions by at least 37 per cent by 2030 compared to 1990, and also to increase the share of renewable energy sources (RES) to 50.9 per cent in the total electricity consumption by 2030. It follows the more progressive scenarios from the Energy Strategy in its coal phase-out timeline, with Oslomej to be decommissioned in 2026 and Bitola in 2031. Key measures in the NECP are the action plan for gradual coal phase out, implementation of the Just Transition Roadmap, establishing structures for the implementation of JT measures and introducing MRV and a national carbon pricing mechanism. This involves a coal transition investment plan for North Macedonia, 35 outlines Macedonia's strategy to transition from coal-based energy to sustainable alternatives, and aims to create an inclusive and low-carbon economy. By 2038, the country expects to reduce over 13 million tons of CO2 emissions, with the government planning to close 824 megawatts of coal-fired electricity generation capacity in Bitola and Oslomej by 2031. Funding will facilitate the development of 400 megawatts of renewable energy capacity and 100 megawatts of energy storage, ensuring long-term energy security. The plan also emphasises investment in human capital, fostering skills development and creating alternative livelihood opportunities to guarantee a just transition for the thousands of affected individuals.

5.3 Challenges in the uptake of renewables

Renewable energy sources in 2024 contribute to 33 per cent of the overall electricity production. A significant milestone in 2023 was a 287 per cent increase in electricity generation from photovoltaic power plants compared to 2022. ³⁶ Governance and transparency challenges persist in the energy sector. The State Commission for Preventing Corruption has conducted several audits, highlighting the need for enhanced digitalisation, **transparency in public procurement**, and improved planning processes at the electricity transmission system operator (MEPSO) and electricity production company (ESM).

The solar prosumer model in Macedonia remains largely underutilised due to a combination of regulatory, institutional, financial and socio-economic barriers. Citizens face bureaucratic delays, unclear grid connection procedures, and poor coordination among key institutions such as the Energy Regulatory Commission, MEPSO (MK operator of the electric transmission system), EVN (power distribution and supply company), and the Ministry of Energy, Mining and Mineral Resources. Financial limitations are especially severe for rural and vulnerable households, who lack access to subsidies, guarantee funds, or appropriate financing mechanisms. Technical challenges, such as limited grid capacity, regularly lead to blackouts on sunny days when too much electricity is produced simultaneously. The absence of smart infrastructure further hinders the deployment of residential solar. There is a serious lack of institutional capacity for public outreach, and citizen's overall awareness of the benefits and procedures for solar self-generation remains low.

With the establishment of the new Ministry of Energy, Mining and Mineral Resources and the ongoing revision of strategic documents, there is now a narrow but crucial policy window to push for the removal of structural barriers, the deployment of financial instruments, and institutional support that would enable a just and inclusive solar transition, especially for households. Without targeted

³⁵ Climate Investment Fund, <u>Accelerating coal transition investment plan for the Republic of North Macedonia</u>, last accessed in April 2025.

³⁶ European Commission, North Macedonia 2024 Report, last accessed in April 2025.

measures, the household prosumer segment risks remaining marginal, which could undermine the country's ability to meet its 2030 renewable energy targets, improve energy security, and strengthen community resilience.

In the renewable energy sector, the National Energy and Climate Plan (NECP) targets a 50.9 per cent share of renewable energy in gross final energy consumption by 2030, aligning with Energy Community commitments.³⁷ Improvements in balancing services, energy transmission and storage infrastructure are critical to integrating renewables more effectively into the grid. **Upgrading the electricity grid remains a priority to enhance system efficiency and reliability.**

The rapid uptake of renewable energy will bring major just transition opportunities but also serious social challenges. On the positive side, renewables can reduce air pollution as North Macedonia suffers from some of Europe's worst air pollution, lower long-term energy costs, create new green jobs and increase energy independence. However, the shift away from coal risks job losses in mining regions like Bitola and deepens inequality as poorer households struggle to afford clean technologies. Furthermore, the energy transition process is all but inclusive. Decisions are too often made without proper citizen consultation and people are informed about decisions only after they are made, rather than being involved active partners in shaping a just and fair transition. Without strong state support for retraining, local development and fair access to renewable investments, the transition could widen social divides even further despite cutting emissions. A truly "just" transition will depend on ensuring that its economic and health benefits reach all citizens, not only investors and urban elites, and that all citizens participate equally in decision-making processes.

6 The Regional Climate Partnership for the Western Balkans

The Regional Climate Partnership for the Western Balkans (RCP) is a joint declaration between the Leaders of the Western Balkans and Germany, signed during the Berlin Process Summit in Tirana in October 2023. Its main objective is to accelerate the "Green Agenda for the Western Balkans" across Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. It focuses on key areas like renewable energy, energy efficiency, climate adaptation, and sustainable transport, aiming to align the region with EU goals and facilitate a just and green transition. The partnership provides a framework for regional cooperation, policy reforms and investment in sustainable infrastructure. By endorsing this joint declaration, the parties aim to intensify both their partnership for climate action and a socially just and green energy transition by jointly developing climate-resilient and sustainable economic and productive development models that fit the region. The RCP will include a mechanism for overall steering and political direction. It will also focus political attention on decision-making, prioritising and results. Financially, the German government foresees providing the Western Balkans Six with up to EUR 500 million over the short and medium term to stabilise the energy sector. Additionally, investments in green energy infrastructure are intended to sum up to EUR 1 billion by 2030 in order to speed up the social and environmental transformation in the region. The funding is channelled through KfW Development Bank as part of Germany's financial cooperation.³⁸

Noticeably, this relatively new instrument could unfold huge potential in the region to speed up the energy transition. From a civil society perspective, we can say that it has not yet had a measurable

³⁷ Energy Community, <u>Draft Integrated National Energy and Climate Plan of North Macedonia</u>, last accessed July 2025.

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³⁸ Joint Declaration of Intent between the Leaders of the Western Balkans Six and the Federal Republic of Germany on the Regional Climate Partnership, October 2023, last accessed on 9 October 2025.

impact on the good practice examples introduced below. It did bring some benefit by supporting the Kosovo Energy Efficiency Fund, but has not yet been visible in the concepts of energy communities in Serbia or in on-the-ground measures for a just transition in North Macedonia. The more local our presented good practice examples are, the less visible was the RCP. Out of fairness, however, it must be said that this instrument is still in its inception phase, and the focus of this paper is to analyse developments from the past couple of years. Nevertheless, awareness of the RCP is constantly increasing in the region, and the intention of the paper is to provide recommendations to the RCP concerning how it could support models for small-scale renewables, energy efficiency and the just transition in the near future. Consequently, in the recommendations chapter, the reader can also find targeted ideas about how countries and municipalities can make better use of the RCP.

7 Inspirations from national level on accelerating the energy transition

7.1 Serbia's integration of small-scale renewables: energy democracy in Serbia

With the energy sector predominantly relying on coal, there is huge potential in Serbia for increasing renewable energy capacities. While nearly 30 per cent of the total energy consumption in Serbia is covered by renewable energy sources, almost 80 per cent of that comes from hydropower plants. The potential for solar energy remains widely untapped, with only around 100 MW installed. Although the government is pushing for large-scale solar-powered projects, with the public electricity company signing an agreement for the development of 1GW of solar-powered capacities, ³⁹ the role of small-scale solar projects has also been recognised by changes in the legislation. The legal introduction of prosumers, renewable energy communities, citizen energy communities and other concepts in domestic legislation has also led to the introduction of the concept of "energy democracy". The key feature of energy democracy is the active participation of citizens and communities through their ownership of energy production systems. This concept has a technical component to it, related to decentralising the energy system and switching to renewable energy, but it also implies political changes based on democratic ideals and participation of citizens and communities in decision-making related to energy policy.⁴⁰

Prosumers and energy communities – legal framework

By adopting the **Law on the Usage of Renewable Energy** in Serbia, the concept of **"prosumers"** was introduced into Serbian legislation. Prosumers are defined in accordance with the concept of "renewable self-consumers" in EU legislation. Prosumers use the electricity they produce for their own needs, with any surpluses that occur when production exceeds consumption being transferred to the electricity distribution system. This acts as a virtual battery, and the power is used later when prosumers need a larger amount of electricity than they can produce.⁴¹ Any final customer can

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³⁹ On 16 October 2024, representatives of the Government of Serbia, "Elektroprivreda" Serbia. and the consortium of companies Hyundai Engineering and UGT Renewables signed the agreement on the implementation of the project for the construction of solar power plants on the territory of six local governments in Serbia. It deals with the project for the construction of large capacity self-balanced solar power plants, with a total installed power of 1 GW with battery systems for storing electricity with a total installed power of 200 MW, https://www.eps.rs/lat/vesti/Stranice/solar.aspx.

⁴⁰ Aleksić V., Grbić B., A critical view of citizens' participation in energy transition through energy democracy and citizenship: Buyer-producer and energy community institutes from theory to practice in the Republic of Serbia, last accessed in May 2025.

⁴¹ Website <u>"Prozjumeri"</u>, last accessed in June 2025.

become a prosumer, including citizens, housing communities, public institutions, as well as businesses. Renewable energy communities are introduced within the same law as a legal entity established on the principle of open and voluntary participation of its members. The primary goal of establishing a renewable energy community is the use of renewable energy sources to meet the energy needs of its community members in a sustainable manner that includes environmental, economic and social benefits for members, as well as for the local community and society. To achieve its primary goal, renewable energy communities develop, invest and implement projects in the area of renewable energy sources and energy efficiency. 42 Finally, with the amendments to the Law on Energy that were adopted in 2024, the concept of citizen energy communities was also introduced into Serbian legislation. Citizen energy communities are founded on the same principles as renewable energy communities, with some differences regarding **membership**, **governance and** activities. 43 Renewable energy communities are obliged to produce electricity from renewable sources, whilst citizen energy communities are not limited to the use of renewable energy sources. There are also differences in its membership concept. In the case of citizen energy communities, only micro and small enterprises can take part, while any legal entity can take part in renewable energy communities. Serbia's NECP sets the target of a 45.2 per cent RES share in electricity production by 2030. To this end, the government has introduced various policies and support measures, for example, institutional, financial, technical, regulatory, and social support to implement the concepts of prosumers, citizen energy communities and renewable energy communities. The Energy Development Strategy of Serbia lasts until 2040. Its initial text only vaguely mentions prosumers, while completely disregarding the concepts of citizen energy communities and renewable energy communities. These concepts were only introduced following intervention by civil society organisations in the form of public consultations and the strategy's upcoming Implementation Programme still needs to define concrete policies and measures.

Prosumer model, renewable and citizen energy communities and energy cooperatives

Prosumer model	 Own facility for the production of electricity from renewable energy sources; delivers supply for self-consumption Surplus electricity is delivered to the transmission system, distribution system, or closed distribution system
Renewable energy community	 Use of renewable energy sources to meet the energy needs of its community members Renewable energy communities develop, invest and implement projects of renewable energy sources and energy efficiency Renewable energy communities have the right to produce, consume, store and sell renewable energy; the right to access all energy markets, directly or through aggregators, in a non-discriminatory manner Any legal entity can take part
Citizen energy	Citizen energy communities are not limited to the use of renewable energy sources
community	Citizen energy communities can participate in the production of electricity, including that from renewable sources, supply, consumption, aggregation, provision of electricity

 $^{^{42}}$ Law on Usage of Renewable Energy (Official Gazette of the Republic of Serbia, no. 40/2021, 35/2023 i 94/2024 – other law). 43 Law on Energy, (Official Gazette of the Republic of Serbia, no. 145/2014, 95/2018 – other law, 40/2021, 35/2023 – other law,

62/2023 and 94/2024).

	storage, energy efficiency or charging of electric vehicles or provision of other services to its members Only micro and small enterprises can be members	
Energy cooperatives	A pioneering concept implemented in Serbia prior to the de opment of a legal framework for energy communities They are founded with the same purpose as the two types of energy communities, but based on the Law on Cooperatives which stipulates that only individuals (natural persons) can establish a cooperative	of S,

As the table shows, the newly introduced models of energy communities have the potential to enhance the energy transition of Serbia, primarily its electricity production. Citizen energy communities offer a broader range of services and activities compared to renewable energy communities. However, renewable energy communities are less strict in terms of membership, particularly regarding enterprises. **Energy cooperatives currently remain in a legal loophole, as only individuals can take part**, while in the case of energy communities (both citizen energy communities and renewable energy communities), legal entities are also allowed, which makes a crucial difference. This refers to the anticipated membership of local self-governments and businesses.

Support schemes for introducing renewable energy

So far, the Ministry of Mining and Energy has introduced a support scheme for prosumers. This scheme is now encompassed by the support scheme for the renovation of households. The title of this call for support is "Energy renovation of family houses and apartments implemented by local self-government units" and it is intended for local self-government units that co-finance the implementation of the measures with the Ministry. The local self-government units, upon receiving funds, open the call for applications for citizens and further administer the support scheme. Among the measures supported through this scheme, subsidies for the construction of solar power plants and the installation of solar collectors are included. In most cases, local self-government units open tenders for financing solar power plants with a capacity of up to 6 kW, or up to 420,000.00 RSD (approximately 3.500,00 EUR). Under this call, citizens are able to apply for multiple measures, not just individual ones. Subsidies for individual measures amount to up to 50 per cent, while for multiple measures the percentage can be as high as 65 per cent. 44 Support is also available from the line ministry for the energy renovation of public buildings and the installation of solar panels. To date, there are more than 3,600 households registered as prosumers, with around 30 MW of installed capacity, 5 housing communities with 0.09 MW, and almost 1,340 other entities (mainly private companies, but also schools, some public enterprises, even monasteries) with more than 75 MW of installed capacity.

So far, no support scheme for energy communities has been in place, as a number of regulatory barriers still have to be addressed by the pending by-laws. Although there is still no registered energy community in Serbia, the needs of citizens to join communities in which RES energy will be produced and consumed were already expressed through the establishment of two energy cooperatives: Sunčani krovovi/Sunny Roofs and Elektropionir. These cooperatives were established prior to the development of the new legal framework, and their legal foundation lies in the Law on Cooperatives. There was a similar trend in the European Union. Before the adoption of the "Clean Energy for All" package, several thousand legal entities already existed in the European Union,

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⁴⁴ Website "Prozjumeri", <u>State subsidies for the construction of solar power plants</u>, last accessed in June 2025.

established mainly in the form of cooperatives. These fulfilled numerous roles that citizen energy communities fulfil today. 45

These energy cooperatives are carrying out pilot projects across Serbia, relying on innovative approaches, investments by the members, crowd investment and grant support. However, a major obstacle is the fact that the Serbian Law on Cooperatives stipulates that cooperatives can only be established by natural persons. This prevents full implementation of the energy communities concept, which should also encompass legal entities such as local self-governments or companies.

Perpetuating obstacles

The obstacles standing in the way of the proper implementation of all these policies remain. Some of the most significant obstacles related to the concept of prosumers are the complex administrative procedures, insufficiently developed infrastructure, limited access to financial incentives and low awareness among citizens about the advantages of this model. Additionally, secondary legislation for the full implementation of the concepts of citizen energy communities and renewable energy communities has not yet been developed. The currently existing energy cooperatives were established based on the Law on Cooperatives and do not formally qualify as institutes in citizen energy communities or renewable energy communities as outlined above.

Short overview of CSO engagement to support two pioneering energy cooperatives in Serbia

The introduction of prosumers, supported by the Ministry of Mining and Energy, led to the installation of approximately 6 MW of capacity within the first year of implementing this concept. However, right away a number of obstacles were noticed, including the unfavourable method of calculating various taxes and fees. For example, the value added tax for prosumers was initially calculated based on the total used electricity, without taking into account the surplus generated by the prosumers. Some of these limitations were removed in 2023 through changes in the relevant legislation, which has reduced prosumers' electricity bills and shortened the timeframe for their return on investment. The two Serbian energy cooperatives (Sunčani krovovi/Sunny Roofs and Elektropionir) started implementing pilot projects. However, they are still facing major challenges, primarily because the relevant legislation does not recognise energy cooperatives as a distinct concept. Furthermore, these cooperatives are facing lengthy legal and administrative procedures, such as extensive grid connection processes, and even reluctance on the part of the distribution system operator. Financing is a challenge as well, since there are no institutionalised support schemes, meaning that cooperatives of this kind rely on alternative approaches such as crowd-investment and fundraising among members. So far, the "Elektropionr" energy cooperative has installed two PV plants: "Solarna Stara" and "Solarna Berba". "Solarna Stara" consists of two solar plants with a 5kw capacity, installed on top of local community buildings in remote villages in South-Eastern Serbia. "Solarna berba" is the first agro-solar plant in Serbia, installed on an organic farm in central Serbia with a 17.5 kW capacity. 46 The "Sunny Roofs" energy cooperative has installed a small 3kw solar plant on the roof of the district heating plant in Sabac, Western Serbia, back in 2020.47 In 2025, this cooperative installed an additional 3kw solar plant on the roof of one of the cooperative members and are now waiting for the plant to be connected to the grid.

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⁴⁵ Aleksić V., Grbić B., A critical view of citizens' participation in energy transition through energy democracy and citizenship: Buyer-producer and energy community institutes from theory to practice in the Republic of Serbia, last accessed in May 2025.

⁴⁶ Energy Cooperative "Elektropionir", <u>"Solar power plant "Solarna berba" (Solar Harvest)</u>", last accessed in June 2025.

⁴⁷ UNDP Serbia, "<u>PUC Toplana-Šabac Set Up a Mini Solar Power Plant</u>", last accessed in June 2025.

During a study visit in Greece in September 2024, some of the energy cooperative members had the opportunity to expand their knowledge through lectures and a field visit to the women energy cooperative WenCoop from Thessaloniki. Participants had the chance to see and experience how energy cooperatives in Greece work, and learned about its governance, ways to increase membership numbers and fundraising.

Outlook into the near future

With recent changes in Serbian legislation, it is now crucial for the relevant by-laws to be adopted to fully enable the implementation of the concept of energy communities in Serbia. These by-laws should define the necessary steps to register energy communities, the conditions and content of the agreements for establishing energy communities, as well as models for using renewable energy sources within energy communities. A very important step would be to achieve more transparency in the work of the distribution system operator (DSO), since the map of available capacities, as well as the up-to-date list of ongoing connection requests, is not publicly available on the DSO's website.

Taking into consideration the fact that there is a gap of more than 10 per cent between the current electricity production from RES and the 2030 target set out in the NECP, there is still a great deal of unused potential in terms of applying these concepts to achieve a decarbonisation of Serbia's energy sector. This can only be exploited if challenges are addressed properly. Currently, less than 0.2 per cent of households in Serbia have become prosumers. There are still no energy communities, and the two energy cooperatives are basically functioning in a loophole, as they were set up based on a different legal foundation and don't qualify as energy communities as per the newly adopted legislation. It is yet to be seen, once the legal framework for the energy communities is fully established, whether the energy cooperatives could (and would) re-register as energy communities. Furthermore, the energy community model obviously has the potential to provide cheaper electricity bills and ensure the decentralisation and democratisation of Serbia's energy system. Besides the environmental benefits, cost savings on electricity are the most important benefit from playing an active role in energy transition for citizens. Especially considering a new 7 per cent price increase in electricity for households in 2025, which is the sixth increase in the last 3 years. Leveraging the potential of renewable energy sources for electricity production in Serbia is crucial to reducing the country's CO2 emissions. Serbia's NECP anticipates that an increased share of renewables could contribute to reducing CO2 emissions from the electricity sector by approximately 30 per cent by 2030.

7.2 Energy Efficiency First: a strategic entry point to the green transition in Kosovo

Kosovo's approach to the energy transition has positioned energy efficiency as a practical and strategic entry point for advancing decarbonisation. The Energy Efficiency First principle is increasingly being recognised as a policy orientation that links energy savings with social welfare and climate mitigation. In a system dominated by lignite-based generation, energy efficiency represents the most immediate and cost-effective means to reduce emissions and improve resilience. The Energy Community's assessment highlights that Kosovo's Energy Efficiency Law (No. 06/L-079) and the Law on Energy Performance of Buildings (No. 05/L-101) represent a solid framework for implementing the EE1st principle, despite the fact that enforcement and data quality remain uneven across sectors.

Recent measures proposed under the draft National Energy and Climate Plan (NECP) demonstrate that Kosovo's efficiency agenda is transitioning from donor-led projects to institutionalised mechanisms. The introduction of the Kosovo Energy Efficiency Fund (KEEF) has opened the

door to investments at scale, prioritising public buildings, municipal infrastructure, and, more recently, residential and SME sectors. This shift reflects a policy trajectory where energy efficiency is no longer treated as a technical fix but as a structural pathway toward a more inclusive and climate-resilient transition.

Key efforts to promote energy efficiency

Kosovo has advanced a series of policy measures, strategic documents, and financial mechanisms to deliver energy savings in line with EU directives. The Energy Strategy 2022-2031 aims to limit final energy consumption to 1,877 ktoe and achieve cumulative savings of 266 ktoe by 2031, while ensuring the certification of at least 150 Nearly Zero Energy Buildings (NZEBs).

The Kosovo Energy Efficiency Fund (KEEF) has become the core institutional driver of these efforts. By December 2023, KEEF had financed 150 municipal-level sub-projects. The portfolio, which was valued at roughly EUR20 million in combined contributions from the European Union, the World Bank, and the Government of Kosovo, covered public building retrofits, street lighting and residential subsidies under performance-based agreements with municipalities. These agreements tie repayments to verified energy savings over periods of up to 15 years, ensuring accountability and fiscal sustainability.

During the 2022-2023 energy crisis, emergency subsidy programmes and incentives for efficient heating systems, coordinated through e-Kosova, helped stabilise demand, reaching thousands of households and SMEs. KEEF also launched an emergency window for residential and social multi-apartment buildings, receiving 4,653 applications in two calls (3,321 in the first and 1,332 in the second). About 72 per cent were pre-approved, though delays in verification and limited administrative capacity created backlogs that temporarily slowed disbursement. These experiences underscore both the high public demand for efficiency investments and the need for streamlined processes.

Another milestone has been the large-scale renovation of public buildings, financed through the World Bank and implemented via KEEF. More than 160 facilities, including schools, municipal offices and healthcare centres, were upgraded, generating lifetime energy savings estimated at 1.14 GWh, annual $\rm CO_2$ reductions exceeding 42,600 tons and around USD 4.7 million in avoided energy costs. The use of performance-based contracts and rigorous monitoring systems has strengthened transparency and provided a replicable model for other Western Balkan municipalities.

Private sector engagement in Kosovo's energy efficiency

Private-sector involvement in energy efficiency is growing, though still largely driven by external pressures and emerging regulatory requirements. Local banks, supported by the EBRD's Green Economy Financing Facility (GEFF), are now key intermediaries for household and SME investments. In 2024, EUR 4 million were channelled through Banka për Biznes and €5 million via Raiffeisen Bank Kosovo into residential retrofits such as insulation and efficient heating, complemented by EUfunded cashback incentives, while an additional €10 million to NLB Banka Prishtina and €13 million to ProCredit Bank Kosovo further expanded the financing available for energy-efficiency upgrades across the country.

For many businesses, improving energy performance has become a necessary adaptation to changing market conditions and upcoming EU rules rather than a voluntary shift. The forthcoming EU Carbon Border Adjustment Mechanism (CBAM), which will enter into full effect in 2026, has prompted companies to reassess their competitiveness. According to the Western Balkans 6 Chamber Investment Forum (WB6 CIF) Survey on CBAM Preparedness (2024), 41 per cent of Kosovo's exporting firms plan to invest in cleaner technologies and efficiency upgrades to mitigate carbon costs and sustain EU market access. Strengthening green credit lines and introducing energy-audit

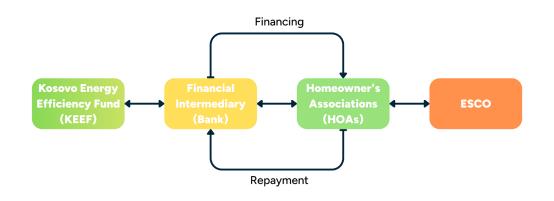
requirements in lending could turn this compliance-driven momentum into lasting low-carbon investment.

Despite these limitations, Kosovo's energy efficiency efforts offer valuable models for replication across the Western Balkans. **KEEF's blended financing model, combining donor grants, competitive procurement and performance-based contracts could be adapted to similar institutional environments.** The temporary winter rebate programme also demonstrated how short-term, low-cost behavioural incentives can play a role in shifting household energy use during crises.

Furthermore, Kosovo is exploring the introduction of **Energy Service Company (ESCO)-type models for Multi-Apartment Buildings (MABs)**, a so-called "indirect model".⁴⁸ KEEF's recent acceptance into the Global ESCO Network further strengthens this direction, providing access to international expertise and best practices in designing and scaling performance-based energy-efficiency services.

The scheme illustrates the proposed financial and contractual structure through which KEEF can operationalise ESCO-type performance contracting in Kosovo's residential sector. The model connects KEEF, financial intermediaries, ESCOs, and **homeowners' associations (HOAs)** in a structured repayment system based on verified energy savings, providing a scalable pathway towards expanding energy efficiency investments beyond public buildings.

Figure 4: Operation scheme for energy efficiency investments in Kosovo's residential multi-apartment buildings ("indirect model")



Source: Own chart⁴⁹

The chart presents the operation scheme for energy efficiency investments in Kosovo's residential multi-apartment buildings through an "indirect model". It shows how financing flows from Kosovo Energy Efficiency Fund (KEEF) to financial intermediaries, who then work with ESCOs and homeowners' associations (HOAs) to implement renovation measures. The repayment of investments is structured through verified energy savings, allowing beneficiaries to gradually repay the costs from reduced energy consumption. This model demonstrates how KEEF's forthcoming ESCO-type approach can overcome the barriers of fragmented ownership and management in multi-apartment

⁴⁸ PLANET S.A., 2023, Final report: <u>Development of financial models for Kosovo Energy Efficiency</u> Fund (IPF10, WB26-KOS-ENE-01), EU IPA II Programme / EIB.

⁴⁹ Based on: Planet S.A., 2024, Final Report: Development of Financial Models for Kosovo Energy Efficiency Fund for Investments in Energy Efficiency Measures for Residential and Small / Medium Enterprises: Gap analysis / Roadmap (IPF10, WB26-KOS-ENE-01), EU IPA II Programme / EIB.

buildings, creating a scalable mechanism to extend energy efficiency investments beyond the public sector.

Perpetuating obstacles

Nearly two years of political instability have weakened an institutional momentum and slowed progress in the energy sector. In this context, Kosovo's energy efficiency agenda remains **hindered by persistent structural and administrative barriers**. Data fragmentation across the Ministry of Economy, the Kosovo Agency of Statistics, and KEEF limits evidence-based planning and complicates the evaluation of results. **Municipal Energy Efficiency action plans are often underfunded and delayed** due to limited staff and constrained budgets.

Reliance on donor funding has created uneven investment cycles, with implementation surging during project phases, and slowing afterwards. Administrative bottlenecks and lengthy procurement processes reduce efficiency, while affordability barriers and limited credit access restrict household participation. In multi-apartment buildings, fragmented ownership and unclear management structures prevent collective renovations, though KEEF's forthcoming Energy Service Company (ESCO)-type models aim to address these gaps.

Public awareness of efficiency benefits remains low, and delays in disbursement have occasionally undermined trust. Sustained outreach, transparent communication and community-based monitoring could counter this scepticism. Civil society organisations and academia are well positioned to strengthen data collection, oversight, and citizen engagement, ensuring that efficiency measures deliver measurable, inclusive outcomes. Several of these linkages were advanced through civil society dialogues which brought together diverse stakeholders including municipal energy officers, research institutions and NGOs to co-design tools for citizen participation in the energy transition.

Short overview of CSO engagement to support energy efficiency measures in Kosovo

Contributions to the efforts towards energy efficiency and sustainable development have been made by the academic field as well, for example, by setting up the Center for Energy and Sustainability (CES),⁵⁰ an interdisciplinary hub that promotes energy efficiency through innovative curricula, applied research and student engagement. CES has launched accredited certificate programmes, drawn external partners, and organised major conferences, including the 2024 International Conference on Environmental Sustainability and Climate Change, which united academia, industry, government and civil society to foster collaboration and solutions for Kosovo's energy transition.

With the high volume of funds invested in energy efficiency projects and measures, there is a need to monitor and evaluate the entire process. In this regard, CSOs have contributed by monitoring institutions, providing policy analysis and advocating for greater accountability and transparency. Their engagement has helped strengthen dialogue among stakeholders and ensure alignment with European frameworks. Through research, CSOs have noted positive developments such as increased investment in public sector efficiency projects, while also identifying gaps, including limited private sector participation, underfunded residential initiatives and the absence of sustainable financing mechanisms.⁵¹

⁵⁰ University of Prishtina, Center for Energy and Sustainability (CES), last accessed on 27 June 2025.

⁵¹ GAP Institute, <u>Governments' Support to Improving Energy Efficiency as a Response to Mitigating (Future) Energy Shocks - Western Balkan 6</u>, last accessed on 27 June 2025.

Outlook into the near future

Kosovo's energy efficiency efforts are reaching a turning point where lessons from past interventions must evolve into long-term, scalable reforms. The coming years will be critical in transforming energy efficiency from a series of donor-driven projects into a nationally owned, sustainable agenda. This shift requires sharper focus on household retrofits, building standards, financing mechanisms and public participation.

In the short term (2025–2027), Kosovo should finalise the NZEB (Nearly Zero Energy Building Strategy) expand household retrofit schemes through revolving funds, and accelerate the renovation of public buildings. Municipalities can act as demonstration hubs, guided by Energy and Climate Officers who translate national targets into local delivery. Building on dialogues and technical collaborations initiated under the regional project, civil society actors are advancing proposals for ESCO models for multi-apartment buildings and energy-poverty observatories in partnership with research institutes, in a bid to bridge data gaps and ensure social equity.

Civil society dialogues emphasise the creation of ESCO models for multi-apartment buildings and municipal energy-poverty observatories in partnership with universities and research institutes. These institutions can bridge data gaps, identify vulnerable households, and ensure that transition measures remain socially equitable and evidence based.

By 2030, one-third of Kosovo's public and residential buildings should benefit from energy-saving measures. The private sector will play a leading role through green finance and energy-service models, while civil society and academic actors strengthen awareness, monitoring and accountability. If implemented effectively, these actions could reduce household energy costs by up to 20 per cent, cut national emissions by around 15 per cent, and position Kosovo not only as a credible partner in the EU's Green Transition but also as a destination for sustainable investment and foreign direct investment (FDI) in the Western Balkans' low-carbon economy.

7.3 North Macedonia's experience in shaping the Just Transition Process

North Macedonia is actively engaged in an energy transition, but it faces both opportunities and challenges. The country has to shift from a heavily coal-dependent energy system to one that incorporates more renewable energy sources and is aligned with EU climate goals. The energy transition is essential for reducing carbon emissions and aligning with the goals set under the Paris Agreement. North Macedonia further needs to improve its energy security and align with European Union (EU) environmental standards, especially as the country seeks EU membership.

The adoption of a Just Transition Roadmap

With the adoption of a **Just Transition Roadmap** in 2023, the country forged a path and established an organisational structure moving it towards a just transition. The Just Transition Roadmap (JTR) is a leading document introducing scenarios and socio-economic measures aimed at maximising the benefits of the transition while **supporting vulnerable communities and workers** at thermal power plants dependent on coal, such as TPP Bitola and TPP Oslomej. It outlines the institutional infrastructure for coordinating and implementing activities related to the just transition. Within this document, integrated models for transitioning from coal at TPP Bitola and Oslomej to renewable energy sources have been developed. This comprehensive approach includes the **modernisation of existing energy capacities**, the integration of **new renewable energy capacities**, and **socioeconomic support for local communities**. The programmes foresee a gradual transformation of

thermal power plants that relied on fossil fuel, along with measures for the compensation and requalification of workers, such as early retirement packages and training new professional skills. The projects for building new renewable energy capacities are expected to **create green jobs**. For this purpose, the government foresees **bodies for just transition**, divided into a **Just Transition Council and a Just Transition Secretariat**. The Council will manage the process politically, while the Secretariat will handle the operational implementation and technical coordination of the fair energy transition.

The Just Transition Roadmap Governance structure was adopted in June 2023, and its operational-isation is key to implementing the Just Transition Roadmap. The Minister of Energy, Mining and Minerals is the national coordinator for its implementation and has formed three working groups on: 1. Retraining and training; 2. Economic transition, and 3. Renewable energy sources (RES) and energy storage.

These three working groups include employees from the relevant sectors within the ministry, but also representatives from municipalities in coal regions. The Just Transition Roadmap also proposes establishing a Governmental Expert Council for Coal Phase-out. Members of the Council consist of the ministers of various line ministries, thus representing the multidimensional impact of the structural change. They include inter alia the Minister of Energy, Mining and Minerals; the Minister of Finance, the Minister of Environment and Physical Planning, the Minister of Social Policy, Demographics and Youth, and the Minister of Local Self-Government. Further members of the Council include the directors of energy and transmission companies in Skopje. This inter-ministerial council is to be responsible for taking decisions on the just transition and for speeding up the legislative amendments to support the just transition. This also includes the energy transition, as the two are interlinked. The Roadmap further proposes setting up local forums for the just transition. Each subregion should decide how these are to be formulated, their composition, and their scope of work based on needs. Their role could resemble that of the Councils, but with the added insights gained from the regional forums, making them more inclusive. Although the working groups within the Ministry of Energy, Mining and Minerals have started, the Just Transition Council is not yet up and running and its operationalisation is one of the key measures in the actions plans of the Reform Agenda and the Green Agenda for the Western Balkans.

Adoption of a Climate Investment Fund

During 2023, the government worked on the **Climate Investment Fund Accelerated Coal Transition plan (CIF ACT)** – a document intended to implement the just transition diagnostic. Although it lacks proper public consultation, the plan's goal is to speed up the country's energy transition and increase in RES. The document was adopted by the government, and a contract for an initial EUR 85 million was approved by the Climate Investment Fund. The next step is to select the initial projects to be funded through the JT governance structure.

The CIF Accelerating Coal Transition Investment Plan (CIF ACT IP) consists of three main components: 1) retiring coal assets and re-powering with renewable energy (RE); 2) socio-economic regeneration of the Pelagonia and Southwest regions; and 3) promoting energy efficiency, clean heating, and decentralised energy production. To support these efforts, the Ministry of Energy, Mining and Minerals has developed an Annual Just Transition Implementation Plan for 2025, which outlines concrete steps to ensure a fair transition that addresses economic, social and environmental aspects. The main goals of the plan are to consolidate the knowledge, regulatory capacity, and communication skills of government stakeholders; accelerate reforms to encourage investment in renewable energy; diversify the economies of coal-dependent regions; and support the reskilling and transition of workers into new, sustainable job opportunities. Together, these initiatives aim to create a balanced and inclusive transition away from coal.

One of the strategic goals in the plan is for the ESM Energy Company to increase installed RES capacities by 30 MW in 2025. The economic transition entails green investments to promote sustainable economic growth through green, innovative industries. The annual plan defines specific measures, projects, competent stakeholders, timeline, budget and indicators to measure implementation. The main obstacle to implementing the annual plan is securing sufficient funding, as well as the still limited involvement of municipalities and local communities in coal regions in central-level planning for the just transition.

Decentralisation and the concept of community forums

The municipality of Bitola is taking a proactive approach and has organised **community forums** with a wide stakeholder group that includes representatives from TPP Bitola, local CSOs and local business and academia. The main goal of the forums is to discuss and propose solutions for the transition of the energy and economy beyond coal. Representatives from the municipality of Bitola have regular meetings with the MOEPP and energy sector in Skopje. Local CSOs are currently implementing different projects aimed at developing new branches of the economy in the region and supporting of small businesses.

By engaging municipal officials, council members, local businesses, academia and civil society organisations within the municipality of Bitola, Eko-svest co-organised community forums that helped to identify key challenges and obstacles to a just transition. The insights from these forums were compiled in the "Vision for the development of Bitola" document. The knowledge gathered was shared with the working groups under the Just Transition Roadmap within the Ministry of Energy and Mineral Resources.

With the municipality of Bitola, Eko-svest co-organised meetings of the Local Socio-Economic Committee (LESC) in Bitola during 2025 to discuss a just energy transition for the region. The LESC is a formal body of the municipality and, as such, it plays an advisory role. Universities in the municipality, as well as local businesses, unions and civil society organisations participate, making it a potential way to ensure the involvement of the country's coal regions in decision-making and in choosing projects for financing the energy transformation in the country. Meetings of the LESC ensure that active discussions take place in trade unions, and that they participate in the energy transition. Conclusions from the work of the LESC and citizen forums are communicated at the working groups on just transition within the Ministry of Energy, Mining and Mineral Resources.

A concept for a territorial just transition plan was recently drafted in cooperation with the Municipality of Bitola, the Technical University of Bitola and national and local CSOs. It is to be presented to the municipal council, thus possibly marking the beginning of a process for a TJTP for the Bitola region.

The community just transition forums are shared as good practice examples by the Municipality of Bitola and have the potential to be replicated in further coal regions in the Western Balkan countries.

Perpetuating obstacles

North Macedonia's energy sector remains deeply dependent on coal, with facilities like the Bitola and Oslomej power plants and associated open-cast lignite mines forming the backbone of electricity generation. This reliance is reinforced by entrenched infrastructure, as the existing grid, heating systems, and broader energy framework rely predominantly on outdated coal technologies, making upgrades or transitions both costly and technically complex. Proposals such as opening new mines, like Živojno, or extending the life of existing ones, further entrench this dependence and risk **undermining just transition goals by delaying the coal phase-out** and diverting resources

from cleaner alternatives. North Macedonia's shift away from coal is not only a technical and economic undertaking, but also a profound societal challenge, **as coal is closely tied to jobs, local identities and regional politics**. Areas like Bitola and Oslomej, where coal mining is a central economic activity, may face economic difficulties without sufficient diversification and support. **Resistance from workers, trade unions, local communities and political actors is likely, particularly where livelihoods are at stake.** Transitioning away from coal must be done in a way that supports these workers through retraining, new job creation and social protections.

This is further complicated by disagreements or delays in government decision-making, for example, in debates about extending the life of coal mines or introducing new fossil gas plants, which highlight underlying conflicts and a lack of alignment among key stakeholders, ultimately slowing progress toward a just and effective energy transition.

There is a significant risk that North Macedonia's energy transition could be delayed or derailed by decisions that **lock in fossil fuel dependence, such as constructing new gas-fired power plants and the EBRD's gasification plan in North Macedonia.** Discussions about extending the life of coal operations also risk committing the country to decades of continued carbon emissions. Earlier this year, the national electricity company (ESM) announced the opening of two new coal mines to secure domestic energy production. ⁵² At the same time, slow progress in deploying renewables or developing adequate energy storage could compromise system reliability and energy security, potentially leading to public or political pushback against the transition itself, further entrenching reliance on fossil fuels and undermining climate goals.

Short overview of CSO engagement for alternative economies in coal regions

Thanks to Eko-svest's work in Bitola, a discussion is now taking place on a future for Bitola without coal and taking into consideration other new or existing economic sectors where investments should be diverted. More of these new sectors are being identified in the community forums and meetings of the Local Socio-Economic Council (LESC), and these will be part of the territorial just transition plan for the Bitola region. Investments in the modernisation of road and rail infrastructure were pinpointed as being key to the creation of favourable conditions for the development of new opportunities. It was discussed that improved connectivity is essential for attracting businesses, enabling economic diversification and supporting labour mobility. As the region transitions away from coal, efficient transport networks with a focus on rail transport can facilitate the movement of goods and people, reduce logistical costs and open access to broader markets. This is particularly important for attracting investment in sectors like manufacturing, tourism, agriculture and services. Upgraded infrastructure also enhances regional integration, making Bitola more competitive and better connected to national and international economic hubs, which is critical for ensuring a just and sustainable transition. Support for small family businesses in the organic farming, dairy and honey sectors, along with retraining the workforce for green jobs, will contribute to economic growth and community sustainability in the Pelagonija region. Fruit production is strong in the Bitola area (for example apples, peas, cherries), and some producers there are already using modern and ecologically friendly methods. There is also interest in promoting and branding regional products, including geographical-origin honey (Pelister- or Mariovo-style honeys) in the Pelagonia area, which also makes the products eligible for the EU market. The number of people who can be employed in small family businesses in the organic farming, dairy and honey sectors in the Bitola region depends on the scale of operation, the type of production, and how labour-intensive the activities are. If targeted support (subsidies, training, cooperatives, infrastructure) is provided,

⁵² Radio Slobodna Evropa, <u>Energy transition with new coal mines and photovoltaics on fertile land</u>, last accessed in January 2025.

this could lead to a maximum of 1,000 direct jobs, mostly in rural areas. Although this number would cover only a portion of the workforce currently employed in REK Bitola (officially around 3,000 workers), it is an important step towards building alternative livelihoods and stimulating local economic resilience. When combined with renewable energy investments and retraining initiatives under the CIF ACT IP. This kind of **rural enterprise development could play a crucial role in cushioning the social impact of the transition away from coal**, and ensure that no community is left behind.

Thanks to Eko-svest's work with other CSOs from the country, the Solar Association of Macedonia has successfully shifted the focus of its project activities to directly support the **just transition by offering retraining programmes in photovoltaic (PV) installation and maintenance for former coal workers.** This strategic move addresses two critical needs: it provides displaced coal workers with practical, future-oriented skills, and at the same time supports the national push toward renewable energy. By equipping former coal workers with technical knowledge in solar technologies, the association helps facilitate their reintegration into the labour market, particularly within the growing clean-energy sector. This initiative not only contributes to workforce resilience but also strengthens local capacities for implementing and maintaining solar infrastructure across North Macedonia. So far, 30 former coal workers, with an average age of 40, have completed a retraining programme.

North Macedonia's energy transition could be facilitated by regional cooperation with neighbouring countries in the Western Balkans. Projects such as cross-border electricity interconnections, regional energy markets and shared renewable energy projects can help North Macedonia integrate its energy systems with the EU and other Balkan countries. North Macedonia is working on improving interconnection with neighbouring countries, for example in projects like the Southeast European Electricity Market.

Outlook into the near future

With the adoption of the new law on energy and draft law on renewables (expected to be adopted by end of 2025), the country is unlocking a lot of barriers to the energy transition. The new Energy Law, despite the considerable delay in passing it, transposes a large part of the European energy legislation, which means a better definition and improvement of the legal regulation in the country's energy sector. The law also regulates citizen energy communities for the first time. What is more, the law obliges municipalities to provide annual reports on measures and results in the area of energy and energy efficiency within their competences. This obligation should encourage municipalities to actively plan and implement such measures by embedding accountability and transparency into local governance. To produce meaningful reports, local authorities must gather data, assess energy use, and develop local energy efficiency programmes, fostering the proactive planning and integration of energy goals into municipal development strategies. The reporting process also strengthens eligibility for national and international funding, builds institutional capacities through the appointment of local energy managers, and aligns local actions with national and EU decarbonisation targets. Over time, regular reporting promotes a culture of continuous improvement, turning municipalities into active drivers of the energy transition rather than passive implementers of central policy.

The Draft Law on Renewables, when adopted, will strengthen North Macedonia's just transition by creating legal certainty and market mechanisms that accelerate renewable energy deployment – a prerequisite for gradually replacing coal generation. At the same time, the law empowers households and communities through frameworks for prosumers and renewable energy communities, ensuring that the benefits of the energy transition are not limited to large-scale developers but are shared more broadly. This community participation fosters social acceptance, reduces energy poverty, and promotes local ownership of energy assets. By aligning national legislation with EU

renewable directives (RED III) and integrating North Macedonia more deeply into the regional energy market, the draft law supports both environmental objectives and economic modernisation. If the country stays on the planned timeline and manages to gradually close down both coal plants by 2030, North Macedonia would lower its current GHG emissions by 60 per cent. However, plans for continuing the construction of the gas pipeline could bring the energy transition to a stand-still or even take it a few steps back.

8 Policy recommendations to municipalities, national governments, bilateral and multilateral partners

In addition to presenting positive examples and initiatives that are worth replicating, this Roadmap also identifies areas where there is room for improvement. These are summarised below and are directed at multiple stakeholders. Some are easier to implement at local level, while others require attention from the national governments. For cross-border cooperation, bilateral partner countries in particular can provide support, most obviously the European Union but also the Regional Climate Partnership for the Western Balkans.

8.1 Kosovo

8.1.1 Recommended priorities that address the KEEF and municipalities

In the shorter term, (2025 -2027) Kosovo's energy efficiency efforts should continue to shift from public buildings, where renovation targets have largely been achieved, toward the residential sector, with **a focus on supporting households and multi-apartment buildings**. The Kosovo Energy Efficiency Fund (KEEF) should prioritise expanding its residential programmes, **simplifying access to financing**, and ensuring that these schemes remain **transparent and inclusive**. To increase the public awareness and spread positive narratives, KEEF should invest in digital tools that calculate and communicate the financial and environmental impacts of its measures to citizens and stakeholders, for example on cost savings, emission reductions and health benefits.

Municipalities should publish annual reports on achieved results, verified energy savings and lessons learned, contributing to a national culture of accountability and public trust in energy investments. At the same time, municipalities who are supported by the Ministry of Economy and KEEF should establish citizen-oriented one-stop systems that integrate energy audits, insulation upgrades, and efficient heating solutions. These systems must be digitalised, user-friendly and designed to serve vulnerable groups first, ensuring that energy efficiency measures contribute directly to alleviating energy poverty. Collective renovation of multi-apartment buildings should be prioritised through Homeowner Associations (HOAs), supported by standardised legal frameworks and advisory services. Municipalities should facilitate the introduction of ESCO models, which allow private-sector participation and performance-based contracting at the local level. In parallel, KEEF should promote the creation of energy-efficient communities, enabling groups of citizens or neighbourhoods to jointly invest in and manage efficiency or small-scale renewable projects. Capacity building for municipal energy and climate officers remains essential. Training

should focus on energy planning, project preparation, monitoring and financial management to enable officers to design and implement local energy efficiency programs effectively.

In the longer term, by 2030, every municipality should have fully trained and empowered energy and climate officers with clear mandates, adequate resources and greater independence to manage energy efficiency portfolios. Strengthening their authority and decision-making autonomy will enable municipalities to implement measures more effectively and tailor actions to local conditions. Parallel to this, the municipalities need a comprehensive inventory of their building stock, distinguishing between pre-war and post-war construction (referring to the war on Kosovar territory 1998-1999), in order to assess the technical potential, investment needs and energy savings achievable through renovation. The lack of a consistent building code in the post-war period has led to wide variations in construction quality and energy performance. A national building stock database would enable evidence-based planning, targeted renovation programmes and the integration of energy efficiency priorities into housing and urban-development policies. Municipal renovation programme should gradually align with nearly zero-energy building (NZEB) standards, supported by continuous updates to construction codes, mandatory energy performance disclosure and robust monitoring frameworks. Municipal one-stop shops should evolve into permanent local energy services, offering guidance to households, SMEs and communities. In addition, community-based projects, such as neighbourhood-scale renewable heating systems or shared rooftop solar initiatives, should be scaled up. Land use and urban planning should be more systematically integrated into energy planning. Urban density, transport corridors and spatial zoning all influence energy demand and the feasibility of district heating, renewables integration and efficiency upgrades. Municipal urban plans should therefore incorporate energy mapping, and identify zones where renewable or district-heating infrastructure can be most effectively deployed.

8.1.2 Recommended long-term priorities that address the national government

Kosovo should establish a multi-annual national framework for energy efficiency, ensuring predictable budget allocations and systematic performance tracking through a digital data platform jointly managed by the Ministry of Economy, KEEF and the Kosovo Agency of Statistics. This platform should integrate information on financial flows, achieved savings and socio-economic outcomes such as reduced energy poverty and improved indoor comfort.

Additionally, the **modernisation of district-heating systems** must remain a cornerstone of Kosovo's national energy efficiency agenda, as reducing heat losses and improving system performance are among the most cost-effective ways to lower overall energy demand in urban areas. As Kosovo prepares for the implementation of the EU Carbon Border Adjustment Mechanism (CBAM), the government should work with enterprises to integrate energy efficiency improvements into industrial processes. **Any future revenues from carbon-pricing mechanisms should be channelled into an Energy Efficiency and Just Transition Fund**, ensuring that benefits are directed toward vulnerable households and communities most affected by the transition.

8.1.3 Transparency and policy harmonisation as key enablers (horizontal aspects)

Transparent reporting on energy efficiency investments and results should be institutionalised across all levels of governance. **To be accountable, KEEF and municipalities should publish annual reports on funding allocations**, savings achieved and emission reductions using accessible online dashboards. Public access to this data will enhance credibility, ensure accountability in fund

management and maintain citizens' engagement in the energy transition. Further, energy efficiency should remain **central to Kosovo's social and economic policy**. Targeted programmes for **low-income and energy-poor households** should combine renovation grants, advisory services and campaigns to promote changed in behaviour. To guide these programmes, Kosovo needs a comprehensive and updated definition of energy poverty, aligned with its National Energy and Climate Plan (NECP). An updated national registry of energy-vulnerable households would allow municipalities and KEEF to target interventions more precisely and evaluate their socio-economic impact over time. **The success of Kosovo's energy efficiency agenda is a multi-stakeholder effort.** It relies on **sustained coordination by national and local institutions**, KEEF, the Energy Regulatory Office (ERO), civil society, academia and the private sector. A structured multi-stakeholder coordination platform should ensure regular dialogue, the harmonisation of programmes and the efficient use of technical and financial resources.

8.2 Serbia

8.2.1 Recommended priorities to integrate citizen energy at the municipal & citizen level

In the shorter term, at the local level, primary efforts regarding citizen energy should aim at awareness raising and capacity building. Local self-governments (city and town administration) should offer relevant information and support to citizens regarding the implementation of prosumer and energy community models by establishing information centres. Through these centres, citizens and businesses would gain proper information on the procedures, available support schemes and benefits from becoming a prosumer or joining an energy community. Furthermore, additional efforts need to be placed on raising the capacities of local self-governments for establishing and taking part in energy communities. Since the initial legal framework has been adopted only recently, with pending by-laws needed to ensure full implementation, comprehensive capacity building for all local self-governments regarding energy communities needs to be ensured.

In the longer term, it is necessary to **institutionalise the education of citizens and businesses in formal and non-formal settings.** For this purpose, media outlets are a good intermediator, and local governments can bring this information to citizens directly. The key narratives should address the benefits, reliability and sustainability of renewable technologies on a scientific basis. In general, there should be an emphasis on the importance of the energy transition and how it serves society and individuals.

Local self-governments should be among the initiators and organisers of energy communities, dedicating parts of their own budget to the upscaling of energy communities. In doing so, they can rely on available public buildings as sights for production facilities, such as the roofs of schools, kindergartens or hospitals, as well as on the ground. In this way, they could contribute to their own savings by using part of the electricity they produce for own consumption, while sharing part of it with other members of their citizen / renewable energy community. For local self-governments, it would be beneficial to develop a model where they can build a production facility from renewable energy sources from their own budget.

It would be beneficial to **establish an association of energy communities in the Republic of Serbia** that represents their interests by addressing regulatory, technical, economic, and social conditions for obtaining status and operating, while also promoting the concept of Energy Communities. In this way, the association could provide them with non-institutional support and assistance in all segments of their work.

8.2.2 Priorities for citizen energy at the national and regional level

In the shorter term, the legal framework needs to be finalised, particularly the by-laws, in order to ensure proper implementation. Primarily, regulations on the conditions of the delivery and supply of electricity should be updated to provide the missing legal framework for energy communities and thus help them function better. Additionally, energy communities should be able to distribute electricity if they meet the prescribed conditions. It is necessary to urgently amend regulations to avoid any legal gaps in the formation and operation of both citizen energy communities and renewable energy communities, so that no legal uncertainty exists concerning the application of these institutes.

Furthermore, the respective governmental bodies should define in detail the procedure for acquiring the status of an energy community, and create a clear guide for acquiring the status of an energy community; including a specific indication of all steps and necessary documentation, and make it possible to submit a completed request for status acquisition in one place. Simple digital tools can also help to ease the registration process for new energy communities, for example by providing a software platform through which applicants can submit the necessary documentation online and monitor the status of their request. In the case of prosumers, it is important to establish a centralised platform for submitting connection requests, to improve the existing subsidy schemes, and to review the existing taxation system.

In the longer term, it would be important to determine the available capacities for connecting facilities for electricity production. The government should publish and regularly update the map of available capacities, so that the interested stakeholders have a clear picture of the possibilities for building production facilities. The same applies to the connection requests that have been submitted and are currently being processed by the Distribution System Operator (DSO). A clear distinction is needed between the available capacities for connecting large production facilities and smaller ones, e.g. for own consumption. It is necessary to define the obligation of the DSO to set aside special capacity for the connection of production facilities of energy communities, in order to promote "civic energy". Furthermore, spatial and energy plans should be harmonised. Currently, the non-alignment of these leads to additional legal uncertainty.

It is necessary to develop special models of subsidies for the formation of energy communities through direct subsidies, interest-free loans and similar forms of support. These also make sense to promote energy efficiency for members of the energy communities and for the construction of production facilities from RES within the energy communities. Additionally, households that are members of energy communities should implement net metering systems, in the same way that prosumers do, with additional benefits in terms of special excise duty rates and reduced value added tax (VAT). Finally, but no less important, the government should work to create an integrated electricity market to propose various market mechanisms in which citizens can be involved: e.g. aggregators, consumption management, dynamic tariffs, purchasing surplus energy. Making use of the full potential of the electricity market would contribute to the financial sustainability of energy community projects.

8.2.3 Transparency and policy harmonisation as key enablers (horizontal aspects)

In order to ensure the full implementation and utilisation of energy democracy in Serbia, cross-sectoral coordination and transparency is crucial. One vital example is the harmonisation between spatial planning and energy planning. These two policies are not fully aligned, and some

spatial plans are not adequately updated, which can create legal uncertainty for the development of concrete projects in the field of energy communities. Similarly, relevant legislation in the fields of energy and finance needs to be harmonised and adjusted to secure financial instruments that support and enable the full implementation of the prosumer and energy communities' concept. Legislation related to taxes and excise needs to be amended to create an enabling environment. Transparency is essential in all aspects, including the publication and regular updating of data and maps on existing renewable energy capacities, as well as submitted connection requests at the level of the Distribution System Operator. The cooperation and coordination among the central and local level of governance should be improved. The inclusion of all stakeholders in decision-making processes, such as citizens, civil society organisations, experts, energy communities and businesses is of utmost importance to ensure informed decision-making, an adequate legal framework and functional support schemes.

8.3 North Macedonia

8.3.1 Priorities for a just transition that addresses municipalities

At the present time, taking its Just Transition Roadmap from planning into implementation is vital for North Macedonia for which municipalities play a key role. The success of the pilot local just transition forums should be built upon and adequate resources provided for this in each coal region to strengthen governance and institutional coordination. These forums must ensure the meaningful participation of municipalities, trade unions, civil society, academia and local businesses in the transition process. As part of efforts to enhance local engagement and decentralisation, municipal capacity should be strengthened so that local governments can effectively plan, implement and report on energy and efficiency measures as required by the new Energy Law. Municipalities should receive financial and technical support to establish local energy managers and to develop local energy efficiency programmes (LEEPs). Community forums like the ones those successfully practiced in Bitola should be institutionalised in all coal-dependent regions as participatory planning tools that enable bottom-up inclusion in decision-making and project prioritisation. In addition, local socio-economic councils (LESCs) should serve as permanent advisory bodies involving municipal authorities, unions, universities and local industries in just transition planning. To ensure a fair socio-economic transition for workers and communities, comprehensive reskilling and retraining programmes should be implemented for coal workers, drawing on successful models like the Solar Association's photovoltaic installation training courses. Income support, early retirement packages and other social protections should be provided to mitigate the immediate impacts of coal phase-out on affected workers. Economic diversification should be promoted in regions such as Pelagonia and the Southwest by supporting small and medium-sized enterprises (SMEs) in sustainable sectors like organic farming, food processing, tourism and green manufacturing. Local agricultural cooperatives and entrepreneurship should be encouraged, particularly in organic agriculture, dairy and honey production with the help of targeted subsidies, branding support and improved local infrastructure.

8.3.2 Priorities that address the national government

At the national level, North Macedonia's just transition process needs to focus on strengthening governance, ensuring policy alignment, mobilising finance, avoiding new fossil fuel dependencies, enhancing regional cooperation and improving accountability. The government should

operationalise the Just Transition Council to provide effective national coordination and oversight of the transition process. Inter-ministerial coordination should be consolidated through the proposed Governmental Expert Council for Coal Phase-Out to ensure alignment between energy, environment, finance and social policies. Other similar bodies, such as the proposed Just Transition Council from the Draft Law on Climate Action could be better structured as a space for these issues.

Financing mechanisms are essential to support the transition. North Macedonia should fully implement the CIF Accelerating Coal Transition Investment Plan (CIF ACT IP) with transparent project selection and monitoring, and use international funding mechanisms to leverage private investment in renewable energy, storage and clean heating. The national government should establish a Just Transition Fund to provide consistent national funding for retraining, diversification and community development projects, and prioritise coal regions in the country. It should also adopt and operationalise the Draft Law on Climate Action. This would significantly accelerate North Macedonia's just transition by establishing a strong legal and institutional framework for decarbonisation and social transformation. The law would give legal force to the country's climate neutrality and coal phase-out targets, turning political commitments into binding obligations. This would provide long-term certainty to investors, municipalities and industries that the shift away from coal is both permanent and enforceable.

The country must also **avoid new fossil fuel lock-ins** by refraining from extending coalmine life-times or developing new coal and gas infrastructure that would delay decarbonisation. Any proposed gas projects should undergo transparent impact assessments to ensure consistency with the 2030 coal phase-out target and 2050 climate neutrality goals.

8.3.3 A legally binding framework and robust monitoring as key enablers (horizontal aspects)

The Climate Action Law would also help align national policies and sectoral strategies, ensuring that energy, environment, transport, industry and social policies are all consistent with the objectives of the Just Transition Roadmap. This alignment is crucial to prevent contradictory decisions, such as new fossil fuel investments, and to ensure that every sector contributes to the transition toward a low-carbon, inclusive economy.

In addition, a legally binding framework would enhance **North Macedonia's credibility with international partners and investors**. This would unlock greater access to climate and just transition finance from sources such as the European Union, the Climate Investment Funds and development banks. By providing policy stability and a clear roadmap for implementation, the law would attract private capital into renewable energy, reskilling programmes and green job creation in coal-dependent regions.

Operationalising the law would also speed up practical implementation by introducing mechanisms for **carbon budgeting**, **emissions monitoring and progress evaluation**. At the same time, the Climate Action Law would encourage local governments, businesses and communities to take a more active role in the transition. In essence, adopting and operationalising the Draft Law on Climate Action would bring **coherence**, **accountability and investment to the transition process**, ensuring that decarbonisation happens faster, more fairly and with broad public support.

Finally, robust monitoring, evaluation and accountability mechanisms are necessary to track the transition progress and maintain transparency. The government should **develop clear national performance indicators** covering social, economic and environmental dimensions, ensuring

independent monitoring that includes civil society and academia, and requiring all transition-related institutions to publish annual progress reports and budgets for public review.

9 How the Regional Climate Partnership can support national efforts

The regional model of the RCP should make the most out of their cross-border approach. All critical stakeholders agree that the WB6 need a regional approach to manage their decarbonisation efforts and energy transition successfully. From integrated grids to the diversification in electricity production, the advantages of regional collaboration are immense. The political management of the RCP should contain clear objectives, defined targets and an action plan that is publicly accessible. Steering bodies, which could rotate, should include representatives from coal regions and representatives from the broad civil society who can provide support in the development of annual action plans and evaluation of its implemented programmes. Here, the RCP should count on the expertise and members from the Civil Society Forum (CSF) of the Berlin Process to harmonise those two initiatives. CSF members could feed in their expertise to identify (annual) political priorities of the RCP. It would enhance the transparency of international actors and increase the ownership of coal region representatives and its citizens alike if they actually become involved in steering the RCP. To ultimately improve transparency and increase ownership of the entire Balkans region, all programmes financed under the umbrella of the RCP should be accessible online through an "easy to handle" virtual library. Finally, yet importantly, efforts from the RCP should by no means be undermined by competing interests from Germany and the European Union in critical raw materials, which reportedly disregard environmental and human rights impact assessments.53 If the economic interest of the EU in critical raw materials counteracts the objectives of the RCP - to strengthen the decarbonisation process in the Western Balkans - Germany's foreign policy in the region loses credibility.

Based on our recommendations in the previous chapter, we have provided ideas on how the RCP can support cross-border cooperation along citizen energy, energy efficiency and just transition models.

Awareness raising, capacity building, and knowledge exchange

In the first place, the RCP can serve the national governments, municipalities and sub-state actors as a knowledge hub, and facilitate exchange on good practices. Investments in the capacity building of ministries and key institutions in one country should always take into consideration regional aspects. This could be targeted trainings for officials in coal dependent regions or other civil servants. Ideally, such trainings could even include individuals from more than one country to foster exchange, and civil servants or private enterprises could coordinate with regional peers on programme implementation. In addition, CSOs should be able to feed their learnings into the RCP, which could then take these models and disseminate them in the wider region. This would increase the outreach of small actors who are unable to create cross-border effects on their own. Regional approaches can also make sure that national initiatives are directly linked to principles from the European Union, which each of the countries has to integrate either way.

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⁵³ Rajić J., Moldvai T., Popović M. et al., Policy Brief, <u>The Jadar Project</u>, Serbia, history, context and concerns, Heinrich-Boell-Stiftung, last accessed on 9 October 2025.

Besides knowledge exchange, there is also the matter of **awareness raising** for civil servants, businesses and citizens. Instead of having investments only nationally, **well-targeted communication can also happen directly across the region as a whole.** Despite the individual language requirements, the narratives and messages can be very similar. Targeting a larger audience and explaining that the energy transition affects the entire region can relieve the stress on the individual coal regions and its inhabitants. Targeted communication can serve as a strong counternarrative to the existing fake news and false interpretations of climate change.

Robust monitoring, evaluation and accountability mechanisms that are comparative for the region

Once the individual countries implement projects and programmes channelled through the RCP (KfW), **robust monitoring and key indicators** can be very helpful. Currently, most of the WB6 lack an evaluation scheme and robust monitoring of their own climate measures. However, the RCP has also not included actual key performance indicators so far. If the RCP starts introducing robust measurement of their own instruments, the governments of the WB6 can and should follow this example. The RCP should similarly include thematic priorities for transparency and accountability. Measures from the RCP should also be decentralised and de-monopolised to make sure that deprived regions also receive the support they need, and larger budgets do not stabilise the oligarchic systems in the current energy sector. Besides, decentralisation is essential to ensure a tailored approach that caters to each region's particular situation and specific needs. A robust monitoring, evaluation and accountability mechanism would also help in this respect.

For the coal regions itself, regular comparative studies would be of utmost importance to really enforce regional learning and the transfer of best practices, and ultimately to increase regional expertise. Regional frontrunners at the local level can be named, honoured and their successful interventions should serve as ideas for other municipalities.

Financial models that enable bottom-up approaches and local initiatives

If local people are to feel the impact of a regional model, its investments should also happen locally. What is needed most for bottom-up projects and small-scale innovations is access to small-scale finance. Big amounts like institutional grants from the European Union, bilateral donors or MFIs do not reach those who are implementing change on the ground. **Bankable intermediators are needed, institutions who channel the large-scale aid to the municipality level and beyond.** Likewise, already established organisations in the Western Balkans from the wider civil society sector can assume such a function, especially if they are already financially supported by the German government.

Energy communities or workers who attend re-skilling programs need guidance in the jungle of theoretically possible aid from the international community. The RCP can and should make sure that small-scale funds, labelled under their roof, is available through application schemes on the local level. Currently those who are seeking for financial support for their innovative models find it the least. This is obviously the responsibility of national governments, to create and implement national just transition funds, but it is also the responsibility of large programs like the **RCP to make parts of their finance also accessible to local initiatives.**

10 Conclusion

As announced in the introduction, this Roadmaps' objective was to present good practices from each country, and to offer some on-the-ground solutions for a long-lasting process of decarbonisation in three Western Balkan countries. We know that flagship initiatives alone will not be sufficient on the road to net zero economies. However, we argue that successful bottom-up approaches can make a significant contribution towards the regional energy transition. It is now the responsibility of government leaders, civil servants, municipal leaders, businesses and the international community alike to consider the practices presented here when drafting policy and developing implementation strategies. We believe that this Roadmap offers essential insights to enrich discussions across Europe, namely between Western Balkan states and EU member states. Leaders should integrate local knowledge and on-the-ground expertise in their decarbonisation efforts.

From Civil Society we will keep up our paths. We continue our collaboration with local communities; engage in further expert discussions and foster exchange across borders. In the end, it is a shared responsibility to work on a greener future for all of us.

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