An Overview of Energy Transition in the Western Balkans: Case Studies from Kosovo and Serbia

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Existing Binding International Contracts

EU Acquis Communautaire

The energy transition in the Western Balkans does not stand alone, but rather 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 one 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.
Besides the reform imperatives derived from the standardized 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 commitments to become the first climate-neutral continent by 2050 and reduce at least 55% 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 were to support and accelerate changes and processes in the region with the overarching goal of addressing climate change.

Sofia Declaration on the Green Agenda for the Western Balkans

The Green Agenda of the Western Balkans consists of 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 commit themselves to align with European climate goals,

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with the vision of achieving climate neutrality by 2050. One important milestone on that path is the commitment to develop integrated 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 induced by the European Carbon Border Adjustment Mechanism (CBAM); the levy starting 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, and thereby forces companies to monitor and report their emissions (and surrender certificates they need to acquire).[1] Ultimately, the aim of the Western Balkan states is a gradual alignment with the EU ETS. Similar to Member States, the WB6 should review and revise all relevant legislation to support the progressive decarbonization of the energy sector and assess its socioeconomic impact, ensuring the transition is a just one; which also implies addressing energy poverty. Besides increasing the share of renewable energy sources, the countries are urged to prioritize 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 and also climate change adaptation measures with disaster risk reduction.

Treaty on the Energy Community

Finally, the Western Balkans Green Agenda also refers to obligations derived from the Energy Community framework, which is likewise a binding agreement that WB6 states have already signed.
The Energy Community is an international organization, which brings together the European Union and its neighbours to create an integrated pan-European energy market. 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, on the basis of 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 foster the use of renewable energy and energy efficiency. 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.

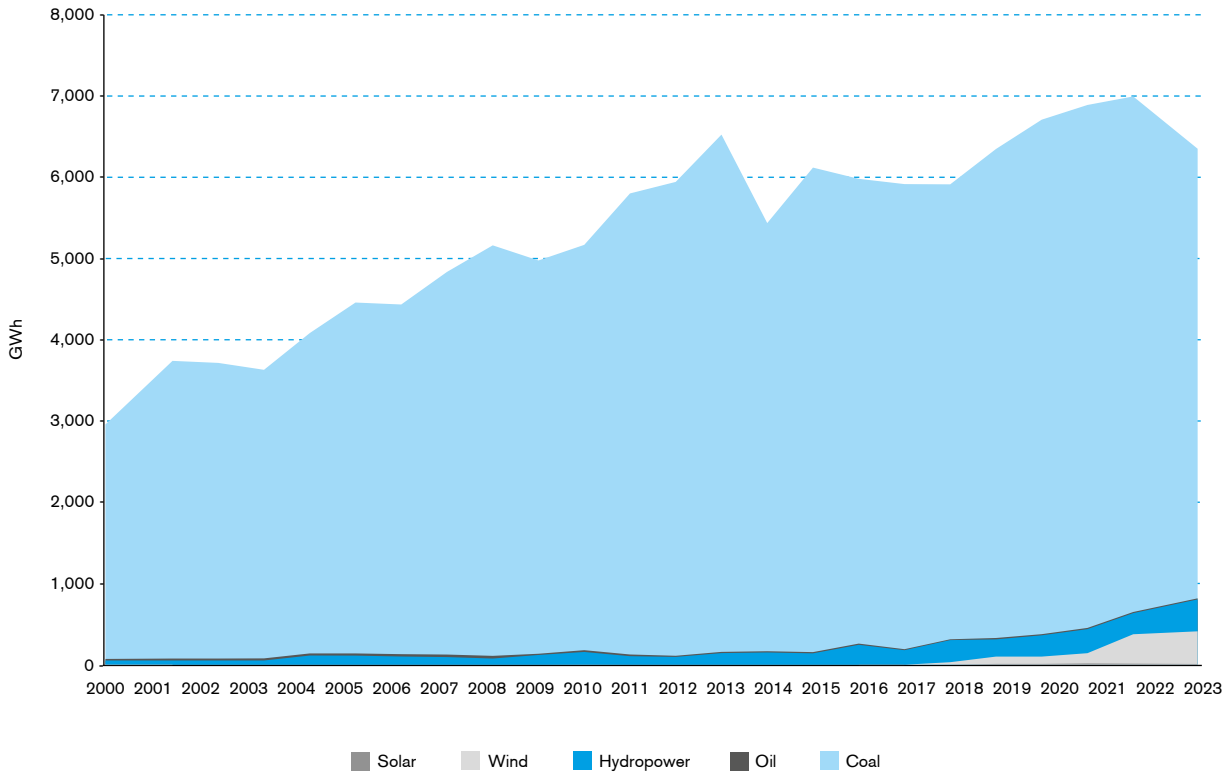
Western Balkans' Energy Transition by Country – Kosovo

The Role of Coal, Gas and Kosovo's Traditional Energy Situation

Kosovo relies primarily on three main energy sources for heating and cooking purposes: lignite coal, oil and biomass. However, this energy consumption pattern is inherently unsustainable due to its heavy reliance on fossil fuels. Kosovo's energy sector is dependent on coal-fired power plants, which account for over 77% of domestic electricity production, among one

[1] Directorate-General for Climate Action 2025: About the EU ETS, last accessed on 9 May 2025 https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/about-eu-ets_en.

CHART 12 **Kosovo's Electricity Generation, 2000-2023**



Source: IEA Statistics. Electricity generation by source, Kosovo, 2000-2023 www.iea.org/data-and-statistics/data-tools/energy-statistics-data-browser?country=KOSOVO&fuel=Energy%20supply&indicator=ElecGenByFuel.

of the highest dependencies in all of Europe. Air pollution 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. Also the Energy Community in its latest "Energy Transition Tracker" noted 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 breaching the limit by over 900%.[2] The health consequences are severe, with around 760 premature deaths annually attributed to air pollution, while the total estimated economic costs due to health effects of air pollution in Kosovo range from EUR 37 million to EUR 158 million a year.[3]

Kosovo's Alignment with International Frameworks

Although Kosovo's direction with the energy transition and climate policy, especially in relation to EU accession requirements and the European Green Deal has improved, Kosovo's pathway to EU integration is marked by an uneven implementation landscape.
Kosovo has made some institutional progress in aligning with the EU acquis communautaire and the Energy Community Treaty.[4] One key element of its pro-

[2] Bankwatch: Comply or Close Report 2023: www.complyorclose.org/countries/kosovo/.
[3] IPA II: EU Support to clean air in Kosovo, 2019: https://enlargement.ec.europa.eu/system/files/2019-08/ipa_2018_041246.05_eu_support_to_clean_air_in_kosovo.pdf.
[4] The Energy Community Treaty https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legissum:l27074.

gress is the adoption of the Law on Climate Change in January 2024, which introduced climate governance structures such as monitoring mechanisms, a National Council for Climate Change and plans for a long-term Decarbonization Strategy.[5]

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The Law on Climate Change outlines state responsibilities for climate mitigation, monitoring and compliance with international agreements. It ensures Kosovo aligns with EU climate regulations,[6] the governance of the energy union and climate action,[7] and the EU Directive on establishing a scheme on greenhouse gas emission allowances.[8]

Kosovo's Law on Climate change is a major breakthrough in 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 2022[9] – 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 their alignment with the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement and the Western Balkans Green Agenda.

The decarbonization and promotion of renewable energy sources is a strategic objective within the framework of the Energy Strategy of the Republic of Kosovo 2022-2031.[10] 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 in the pan-European market and the EU ETS. Revenues collected from this system will be one of the sources of a Just Transition Fund. The use of this fund is to be determined and may include the promotion of Renewable Energy Sources (RES), training and retraining of workforce, energy-related projects for vulnerable consumers, etc. The implementation should start in 2025, with an aim to achieve EU ETS integration by 2031, thus contributing to bringing Kosovo closer to the EU and in alignment with its policies and standards on decarbonization. However, concrete steps in this regard are yet to be seen to avoid any negative consequences from CBAM when it is enforced as of 2026.

Kosovo has established a Law on Environmental Impact Assessment, which requires public and private projects to assess their environmental impact prior to implementation.[11] Additionally, Kosovo's Ministry of Economy has drafted the National Energy and Climate Plan (NECP),[12] which directly addresses the objectives in Chapter 27 from the EU acquis. The NECP outlines an overview of the current situation in Kosovo and determines what measures need to be taken in the future in the following areas (dimensions):

The decarbonization dimension of the NECP focuses on implementing policies and measures across all sectors to reduce greenhouse gas (GHG) emissions and sustainably increase the share of renewable en-

[5] Law No. 08/L-250 on Climate Change. https://gzk.rks-gov.net/ActDetail.aspx?ActID=85112.
[6] Commission Implementing Regulation (EU) 2018/2066. https://eur-lex.europa.eu/eli/reg_impl/2018/2066/oj/eng.
[7] Regulation (EU) 2018/1999 on the governance of the energy union and climate action. https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=celex:32018R1999#:~:text=It%20aims%20to%20implement%20strategies,targets%20for%20energy%20and%20climate.
[8] Directive 2003/87/EC of the European Parliament and of the Council. https://eur-lex.europa.eu/eli/dir/2003/87/oj/eng.
[9] Government decision No. 07/54 on 12 January 2022. https://kryeministri.rks-gov.net/wp-content/uploads/2022/01/Vendimet-e-mbledhjes-se-54-te-Qeverise-se-Kosoves-1.pdf.
[10] Energy Strategy of the Republic of Kosovo 2022-2031. https://me.rks-gov.net/wp-content/uploads/2023/04/Energy-Strategy-of-the-Republic-of-Kosovo-2022-2031-1-1.pdf.
[11] Law No. 03/L-214 on Environmental Impact Assessment. https://cps.rks-gov.net/wp-content/uploads/2020/08/LAW_NO._03_L-214_ON_ENVIRONMENTAL_IMPACT_ASSESMENT.pdf.
[12] Public consultation of the Draft-National Energy and Climate Plan of the Republic of Kosovo 2025-2030 Plan. https://konsultimet.rks-gov.net/viewConsult.php?ConsultationID=42695.

ergy in total energy consumption. Approximately 87% 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 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 decarbonization dimension also includes interventions in other sectors, such as transport, contributing to broader systemic efficiency.

The 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 liberalization 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% of peak load by 2030, Kosovo far exceeds this benchmark. Its interconnection capacity is several times greater than its peak load, positioning it among the top three countries in Europe for 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), headquartered in Tirana. With ALPEX fully operational in both markets and robust interconnection infrastructure, congestion is expected to be minimal, resulting in negligible price differences between the two countries.

The NECP measures align closely with EU Chapter 15 (Energy) by advancing market liberalization, 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 mark towards compliance with the EU acquis, specifically Chapter 15, is the establishment of the Energy Regulatory Office (ERO), an independent body tasked with overseeing market regulation.[13] The ERO monitors annual reports and energy systems for district heating, electricity and gas, and aims to make sure the market is transparent.

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 foundation 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. 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 CO_2, averaging 4.9 tonnes

[13] Energy Regulatory Office. https://www.ero-ks.org/zrre/en/home.

per capita[14] – 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 decarbonize 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.

Energy Poverty

Kosovo's energy sector stands at a critical juncture, grappling with the dual challenges of transitioning towards decarbonization while addressing the deep-rooted issue of energy poverty.[15]

Despite its decarbonization commitments, Serbia's draft national Spatial Plan includes new thermal power plants

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% of households in Kosovo struggle to pay their utility bills at least once in a year,[16] while 13.6% of households cannot afford to sufficiently heat their homes when needed.[17] This situation was exacerbated in 2022 and 2025, when energy tariffs increased by 16.1%, impacting households consuming more than 800 kWh per month. Existing measures – general subsidies and reduced tariffs – lack targeting and exclude large groups of people that are energy vulnerable. The absence of a comprehensive register of vulnerable consumers continues to limit the precision and effectiveness of interventions.

Western Balkans' Energy Transition by Country – Serbia

The Role of Coal, Gas and Serbia's Traditional Energy Situation

Serbia primarily relies on low-quality lignite for electricity production, with nearly 70% of electricity being produced by thermal power plants, causing 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).[18] Thermal power plants are regularly breaching 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 those of SO2 (sulfur dioxide). In 2023, they emitted 5.4 times as much SO2 as allowed under the NERP ceiling.[19] 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 the 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.[20] The European Commission (EC) criticizes in its latest Country Report Serbia's dependence on Gazprom and on Russia's

[14] Kosovo: CO_2 Country Profile. https://ourworldindata.org/co2/country/kosovo.
[15] Bankwatch. 2023. "The Energy Sector in Kosovo." CEE Bankwatch Network. https://bankwatch.org/beyond-fossil-fuels/the-energy-sector-in-kosovo.
[16] Results of the Survey on Household Budget, 2022. KAS. https://askapi.rks-gov.net/Custom/05ec40da-61a2-4ace-ae25-241e2c38c050.pdf.
[17] Results of the Survey on Income and Living Conditions (SILC), 2023. KAS. https://askapi.rks-gov.net/Custom/6a6ce07d-be4b-45b4-a9ab-2f3e9b20f5cb.pdf.
[18] Danas: Blic – Serbia ranked first in Europe in mortality due to pollution, 2020.
[19] Bankwatch: Comply or Close Six years of deadly legal breaches by Western Balkan coal plants, 2024.
[20] European Commission – Serbia Country Report 2024.

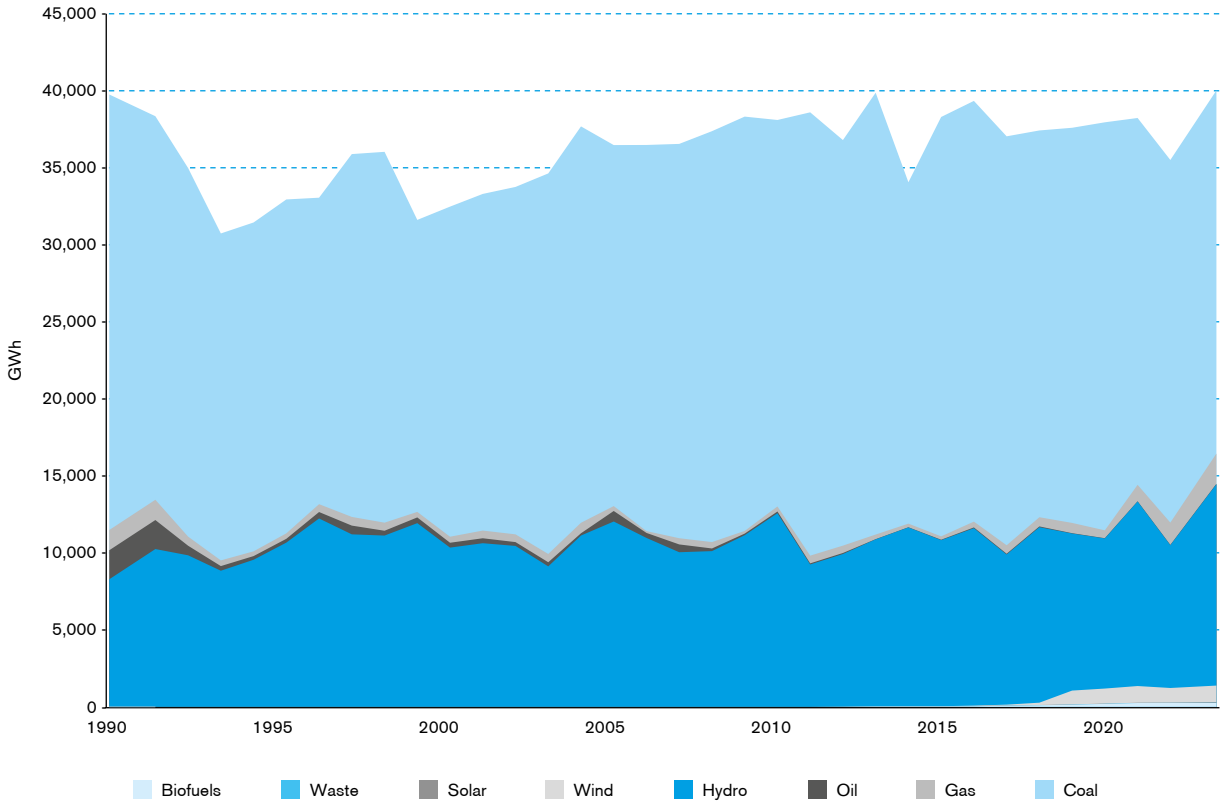
majority ownership of Serbia's critical infrastructure and oil industry. Furthermore, the EC states that Serbia should allow non-discriminatory third-party access to its gas network. The wholesale market in Serbia is the most monopolized market in the Energy Community, with the monopolistic supplier, Srbijagas, providing all imported quantities, mainly from Gazprom, through a long-term contract concluded until 2025, for approximately 75% 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 for gas imports until the end of 2026, although the amount of gas agreed with this country would only cover around 13% of Serbia's needs.[21]

Alignment of National Policies with International Obligations

The strategic and legal framework in Serbia for meeting international obligations regarding decarbonization lacks clarity on coal phase out and ambition in certain aspects. 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 is intended to achieve short-term and long-term 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 ambition.

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

CHART 13 **Serbia's Electricity Generation, 1990-2023**



Source: IEA Statistics, AERS.

[21] Ibid

verification of GHG emission due to be introduced. In addition, its goal is to arrange systems for adaptation to changed climate conditions, as well as monitoring and reporting on 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.[22]

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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, with the authors of the document stating 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 GHG emission reduction, as compared with 1990, would be 76.2%. In addition, the Strategy predicts that Serbia will continue using coal until 2050. Most of the decarbonization-related measures are planned for after 2030.[23] Ultimately, the Low Carbon Development Strategy does not align with the NECP or 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 decarbonization 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 – it directs the overall social and economic development and preserves natural resources and cultural heritage. It is followed by spatial plans of a narrower scope, which include smaller territorial units, which must be harmonized with the national Spatial Plan. Despite its decarbonization commitments, Serbia's draft national Spatial Plan includes new thermal power plants.

Serbia has also undertaken the obligations 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) decarbonization (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%), transport (7%), and heating and cooling (41.4%). However, the NECP does not plan for Serbia to be climate neutral by 2050. In a best-case scenario Serbia will achieve an 80 to 90% reduction in greenhouse gas emissions, as compared with 1990.

Bearing in mind the situation as regards the strategic and legislative development for decarbonization, 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 of 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. Further, to prepare and submit a new National Determined Contribution under the Paris Agreement.[24]

Although Serbia has continued to align with the EU acquis on energy efficiency, still further alignment with the Energy Performance of Buildings Directive and Renewable Energy Sources Directive is required.[25] According to the European Commission, the institutional capacities for implementing energy efficiency

[22] Coalition 27 – Chapter 27 in Serbia: Years go by, we stand still, 2024.
[23] Coalition 27 – Chapter 27 in Serbia: Years go by, we stand still, 2024.
[24] European Commission – Serbia Country Report 2024.
[25] European Commission – Serbia Country Report 2024.

measures should also advance. For example, Serbia has introduced energy poverty in its legal framework and recently introduced new subsidy schemes for vulnerable consumers. They offer the recovery of 90% of the household renovation costs by the line ministry and local self-governing body. However, these calls need to be adjusted for an adequate targeting of energy-vulnerable consumers and consumers faced with energy poverty. However, so far these calls reveal some level of institutional mismanagement. On the one hand, the criteria for obtaining the status of energy-vulnerable consumers do not properly encompass all citizens faced with 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 faced with energy poverty cannot access these funds.[26] 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.

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 properly implemented in Serbia. It is worth mentioning that hydropower often entails a cost 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 percent. Following the introduction of new legislation in the area of renewable energy, the share of renewables was slightly improved. 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 and ii) feed-in tariffs.[27] 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 – which was a good start but still leaves a lot of room for improvement.[28]

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The concepts related to citizen energy – vital for the decentralization and decarbonization 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 formalize their status, implementation in practice has been somewhat slowed down due to complex procedures, imposed limitations on the maximum power of prosumer power plants and assessments revealing the insufficient development of the existing electricity infrastructure. In addition, the concepts of citizen energy communities were only introduced into the legal framework last year, with pending by-laws. 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 a great deal of room for improvement here, since Serbia has 30% more solar energy potential than central Europe, with over 2,000 hours of sunshine per year.

[26] RES Foundation – Whose energy efficiency is? – Clean Energy for Some Citizens.
[27] RERI: Analysis of the Law on Renewable Energy Sources, 2024.
[28] RERI: Analysis of the Law on Renewable Energy Sources, 2024.