

Assessment Report

PROGRESS IN IMPLEMENTING THE ENERGY STRATEGY OF THE REPUBLIC OF KOSOVO BY 2025

July 2026

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List of acronyms

ALPEX	Albanian Power Exchange (Albania–Kosovo power exchange)
EBRD	European Bank for Reconstruction and Development
RES	Renewable Energy Sources
CBAM	Carbon Border Adjustment Mechanism
CfD	Contract for Difference
CO₂	Carbon dioxide
EECS	European Energy Certificate System
EU ETS	EU Emissions Trading System
KEEF	Kosovo Energy Efficiency Fund
GIZ	German Agency for International Cooperation
GO	Guarantees of Origin
KEDS	Kosovo Electricity Distribution Company
KfW	German Development Bank
KOSTT	Kosovo Electricity Transmission, System and Market Operator
ktoe	kilotonnes of oil equivalent
MCA Kosovo	Millennium Challenge Account Kosovo
MCC	Millennium Challenge Corporation
MW	Megawatt
MWth	Megawatt thermal
NO_x	Nitrogen oxides
OECD	Organisation for Economic Cooperation and Development
OST	Transmission System Operator (Albania)
PPA	Power Purchase Agreement
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SO₂	Sulphur dioxide
SO_x	Sulphur oxides
WEM	Women in Energy and Mining
ERO	Energy Regulatory Office

Executive Summary

The Energy Strategy of the Republic of Kosovo 2022-2031 (the Strategy) aims to decarbonize and transform the energy sector towards a more sustainable and secure system, in accordance with Kosovo's obligations and its orientation towards EU climate and energy policies. The purpose of this Report is to assess progress to date and the extent to which the short-term strategic objectives established in the Strategy have been achieved through 2025, while presenting the main challenges and achievements that have influenced their implementation.

The key findings show that progress on decarbonization and the expansion of renewable energy source (RES) capacity remained limited through 2025 and below the targets set in the Strategy. The share of RES in electricity consumption is only 8%, below the 13% target for 2024. During 2021–2025, installed RES capacity increased by only 51 MW, from 279 MW to 330 MW, driven mainly by small-scale private investment. In particular, the slow pace of implementing and operationalizing renewable-energy investment projects remains a concern. Projects representing more than 700 MW of capacity are currently at various stages of implementation, but most remain in administrative procedures rather than construction. A more positive trend is evident in prosumer capacity, which reached approximately 34 MW in 2025 and exceeded the interim target of 30 MW. This result is attributed mainly to simplified prosumer-licensing rules and the liberalization of the energy market, which has encouraged businesses to install RES capacity for self-consumption.

This slow expansion of RES is insufficient to achieve the long-term target of 1,600 MW in installed generation capacity by 2031. Consequently, Kosovo continues to rank last in the region and remains significantly behind other countries in terms of installed RES capacity. Electricity demand is also under greatest pressure from the residential sector, where energy inefficiency remains high. In this regard, the Strategy is lagging behind in achieving its energy efficiency targets in this sector.

Furthermore, despite the timelines set out in the Strategy, Kosovo has not yet designed a domestic carbon tax or carbon-pricing scheme to penalize polluters and allow part of the payments that Kosovo exporters may be required to make under the European Union's Carbon Border Adjustment Mechanism (CBAM) to be retained and reinvested domestically.

Further progress in implementing the Strategy has been observed in system reliability and the quality of electricity supply. Distribution losses have fallen to 13.7%, meeting the target that they should not exceed 14.5% by 2024. These results are linked to investments in network modernization, preventive maintenance and improved system management. However, the main challenges to further improve supply reliability are delays in rehabilitating existing power-generation capacity (TPP Kosova A and TPP Kosova B), and the fact that the rehabilitation projects have not begun according to the envisaged timelines.

Progress is also evident in energy efficiency, although not to the extent required to reflect greater energy savings and achieve the targets set in the Strategy. Despite their importance, investments in energy efficiency in public buildings are insufficient because they cover only a small share of final consumption. The main focus should shift to residential and commercial buildings, which are also the main

energy consumers and where the potential for savings is greatest. Although savings in residential/commercial buildings have met the short-term target, the current pace remains slow and makes achieving the long-term energy savings targets challenging.

Regarding regional cooperation and market functioning, positive steps have been recorded, including the purchase of electricity through ALPEX since 2024 and the liberalization of the energy market in 2025, although trading through the power exchange remains limited. Available cross-border capacity has not reached the planned target of 28–30% for imports and exports. Current capacity stands at 22–24% for exports and 24–26% for imports, meaning that technical limitations of the interconnectors prevent the full use of available electricity-trading potential. Full integration into the regional market and the target of making 70% cross-border capacity available for electricity trading in both directions by 2031 remain challenges to be addressed. In terms of the social dimension and consumer protection, three support schemes have been developed for vulnerable consumers, and 17 awareness-raising campaigns have been conducted.

This Report finds that the main challenges to implement the Strategy are delays in investment projects, the slow development of new RES generation capacity, the lack of progress in introducing a carbon tax or carbon-pricing scheme and preparing for the impact of CBAM, and the substantial financing required for investment projects. More generally, the Strategy does not comprehensively cover all sectors of the economy, including transport and industry, and excludes projects promoted at the political level, such as a coal-gasification power plant, which are not reflected in the strategic document. In this context, efforts to achieve the Strategy's targets should be prioritized and accelerated. This includes reforms to accelerate and simplify licensing for RES projects, investment in the energy system, more favourable conditions for investment in new RES generation capacity, and the identification of priority investment zones. It is also essential to gradually introduce carbon pricing and establish an energy-transition fund, while strengthening the protection of vulnerable consumers through direct support programmes and energy-efficiency measures.

Introduction

The Energy Strategy of the Republic of Kosovo 2022-2031 is a key document setting out the policy direction and measures for the development of the energy sector over a ten-year period.¹ This document is based on the legal framework for energy and strategic planning and replaces the 2017–2026 Strategy due to the need for restructuring and adapting to recent changes in Kosovo, the region and beyond, as well as for better coordination with other policies.²

As part of its obligations to the Energy Community and its commitments under the Green Agenda, Kosovo aims to align with EU legislation on climate, energy and the environment, including instruments such as carbon pricing and the gradual implementation of emission-related rules.³ Given the risk posed by mechanisms such as CBAM and market volatility during the energy crisis, the Strategy emphasizes the need for a profound transformation of the energy system towards greater sustainability and diversification.

The Energy Strategy 2022-2031 aims to transform the energy sector of Kosovo toward a sustainable, clean and affordable system, prioritizing the development of RES generation capacities, such as wind and solar energy, through auctions and investments. At the same time, measures are envisaged for the gradual reduction of coal use, including the modernization of the TPP Kosova B units and the reduction of the role of TPP Kosova A. The Strategy also focuses on integrating the energy market with Albania and developing the power exchange, for which an initial and important step has been taken with the establishment of ALPEX. It also aims to increase energy efficiency, reduce import dependency and empower consumers through measures that ensure social justice and affordability.

The Strategy is built on five main objectives. The first objective aims at enhancing system reliability and security of supply by making the system more resilient and flexible. This is achieved through enhancing system flexibility, modernization of networks and reduction of network losses, improving generation capacity and strengthening cybersecurity. It envisages the refurbishment of the main generation units, in this case the refurbishment of the TPP Kosova B units and at least one TPP Kosova A unit.⁴

The second objective aims at decarbonization and promoting renewable energy by reducing CO₂ emissions and increasing the role of RES so that energy becomes cleaner and more sustainable over the long term. This is achieved through the gradual introduction of the carbon tax, increasing renewable energy sources in electricity generation and promoting the use of renewable energy in heating.⁵

The third objective aims at increasing energy efficiency and decreasing energy intensity, to decrease supply needs, emissions and pollution, as well as import dependency and costs for citizens and businesses. This objective focuses on improving the energy efficiency of buildings and on the promotion of efficient cogeneration and efficient district heating. The aim is to limit final energy consumption and achieve savings, including the certification of Nearly Zero Energy Buildings.⁶

¹ Ministry of Economy, Energy Strategy of the Republic of Kosovo 2022-2031, pp. 11 - 12

² Ibid., p.11

³ Ibid., p.33

⁴ Ibid., p. 30-33

⁵ Ibid., p. 33-35

⁶ Ibid., p. 35-38

The fourth objective aims at strengthening regional cooperation and market functioning by creating a more integrated and competitive energy market in accordance with the obligations of the Energy Community. This supports security of supply and affordability, particularly through integration with Albania and the full functioning of ALPEX. The objective also includes removing market barriers and investing in professional training in energy-related fields, with a particular focus on women's inclusion in this sector.⁷

The fifth objective aims at protecting and empowering consumers, by placing citizens at the center of energy-sector reforms, especially vulnerable consumers, so that they can afford energy costs and gain access to more efficient energy and heating solutions. This objective envisages improvements to support schemes, programs for energy efficiency and self-consumption, information campaigns and other similar measures.⁸

All objectives of the Energy Strategy cover a period of almost ten years (2022–2031), and targets are set out for each objective up to 2031. However, within these five main objectives, the Strategy also envisages concrete short-term measures and targets for 2024 and 2025. To analyze whether these targets had been met by 2024/2025, this Report applied a combined methodology that included: conducting interviews with representatives of KOSTT, ERO, the Ministry of Economy and EBRD⁹; collecting data provided in response to requests for access to public documents from ERO and the Ministry of Economy, and reviewing relevant institutional documents and reports, including strategies, progress reports, implementation plans and supporting materials for both Kosovo and the countries of the region. Of the 24 indicators analyzed, the data for most are up to date and reflect achievements through the end of 2025. The exceptions are three indicators for which the latest available data are from 2024. Furthermore, this analysis did not include all the indicators in the Strategy document, but a selection was made by focusing on key measurable indicators supported by verifiable and predominantly numerical data. Indicators of a procedural nature, for which standardized data are lacking, were excluded to preserve objectivity and comparability.

In the analysis, the challenges were addressed according to their nature, including challenges in implementing the Strategy's objectives, which mainly relate to a lack of institutional capacity, delays and a lack of resources, and challenges stemming from the Strategy document itself, such as a lack of coherence among the objectives, the failure to include key sectors (such as transport and industry), and misalignment with realities on the ground. Beyond assessing progress against the established objectives, this Report also seeks to raise a more fundamental question concerning the strategic framework itself: to what extent does the Energy Strategy 2022–2031 continue to represent an appropriate approach to current developments in Kosovo's energy sector? Considering the rapid changes in energy markets, as well as growing pressure for decarbonization, the analysis is not limited solely to measuring progress against the targets of the established objectives, but also critically examines their relevance and appropriateness.

⁷ Ibid., p. 38–40

⁸ Ibid., p. 40–44

⁹ Interviews were conducted with Arbëresha Isufi (Head of the Energy Policy Division at the Ministry of Economy of Kosovo), Trim Ternava (Chief Executive Officer of KOSTT), Sergiy Maslichenko (Head of Kosovo at the European Bank for Reconstruction and Development – EBRD), and Petrit Pepaj (Executive Director at ERO).

Progress in achieving strategic objectives

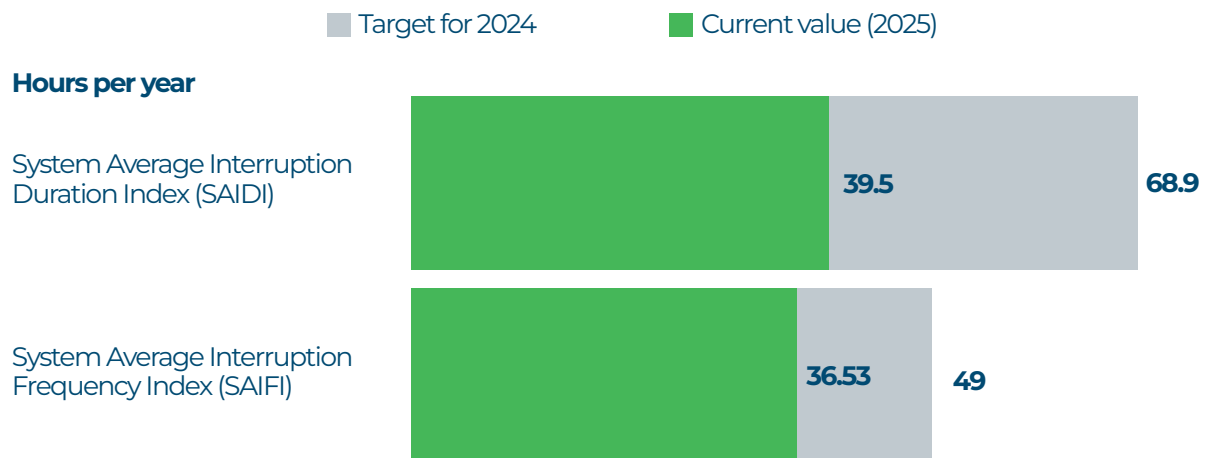
Objective I. Improving system reliability

Specific Objective: Enhancing system flexibility

As part of improving energy-system reliability, two key indicators are used: SAIDI, which refers to the System Average Interruption Duration Index, and SAIFI, or the System Average Interruption Frequency Index.¹⁰ SAIDI measures the total duration of power outages experienced on average by a consumer over a given period, usually one year, while SAIFI indicates the average number of interruptions in electricity supply experienced by a consumer during the year.¹¹

According to the Energy Strategy 2022-2031, the target for 2024 was for the average annual duration of electricity interruptions per consumer (SAIDI) not to exceed 68.9 hours per year. The latest data show that the current SAIDI value is 39.45 hours per year, demonstrating an improvement in the reliability of supply and achievement of the established target. On the other hand, regarding the frequency of interruptions (SAIFI), the target was that, by 2024, consumers would experience no more than 49 interruptions during the year. According to the 2025 data, SAIFI stands at 36.53 interruptions per year, which means that the target has not only been achieved, but performance has also improved beyond the targeted level.¹²

Figure 1. Electricity system interruption indicators



Source: Energy Regulatory Office (ERO)

This progress results from a comprehensive approach that combines technical interventions with organizational measures in distribution-network management. From a technical perspective, preventive maintenance and regular inspections have enabled faults to be identified and addressed in a timely manner, reducing high-impact interruptions. Investments in network modernization, including the replacement of obsolete equipment and the installation of underground cables in problematic areas, have increased supply reliability. Network automation through smart devices and SCADA systems has also accelerated fault identification and isolation and the restoration of supply, contributing to lower SAIDI values and

¹⁰ MPSC. Distribution System Reliability Metrics

¹¹ Ibid.

¹² The data were obtained from ERO through a request for access to public data.

improved SAIFI performance. From an organizational perspective, the rapid response of field teams and better coordination of planned outages have directly improved operational performance. At the same time, advanced data analysis has supported better planning and more efficient interventions, further strengthening system reliability.

—— Specific objective: Network modernization and reduction of network losses

Similar to the improvement of the main system interruption indicators, reducing electricity losses has also been an important objective within the improvement and modernization of the electricity network. The Energy Strategy 2022-2031 established that losses in the distribution network should not exceed 14.5% by 2024. The 2025 data show that the level of losses stood at approximately 13.7%, marking a decline of nearly 5 percentage points compared with the loss level (18.5%)¹³ of 2021. The target established for 2024 was met because of technical interventions in the distribution network, the same factors that also contributed to improvements in other electricity-supply indicators.

Figure 2. Electricity distribution losses



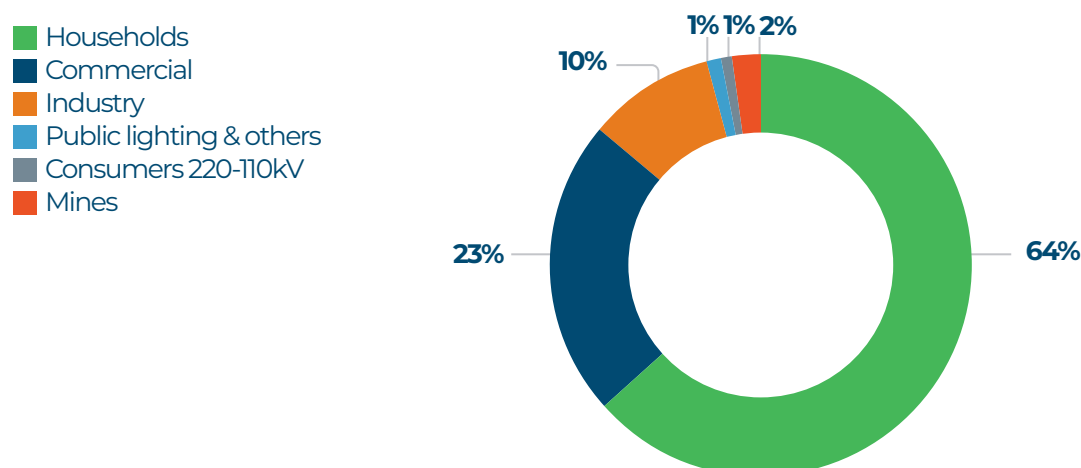
Source: Ministry of Economy

Although the short-term objective has been achieved, the target of ensuring that electricity losses do not exceed 9% by 2031 remains challenging.¹⁴ This is because the structure of electricity consumption in Kosovo is dominated by households, a sector in which non-technical losses remain substantial and continue to pose a challenge. To address this issue, investments in modernizing the transmission and distribution networks must continue, together with procedures that are as straightforward as possible for connecting self-generators/prosumers.

¹³ The data were obtained from the Ministry of Economy (Department of Energy) through a request for access to public data.

¹⁴ The amount of energy lost in distribution and transmission at the European Union level is approximately 6%. [World Bank Indicators](#), 2023

Figure 3. Electricity consumption by sectors, 2025



Source: Kosovo Agency of Statistics (KAS)

— Specific objective: Rehabilitation of existing electricity production capacities

To improve system reliability and guarantee security of supply, while also achieving the objectives set out in the Energy Strategy 2022-2031, investment in the main generation assets is essential. The Strategy envisaged the refurbishment of two TPP Kosova B units, B1 and B2, so that both would operate efficiently by the end of 2025 or, at the latest, in 2026. It also envisaged the refurbishment of one TPP Kosova A unit by the end of 2024. To date, the comprehensive rehabilitation and refurbishment projects for these units have not begun.

As part of ongoing refurbishment interventions, Unit B1 underwent an overhaul in 2025.¹⁵ In 2024, the transformer built in the 1970s at TPP Kosova A was replaced with the aim of ensuring a stable electricity supply.¹⁶ However, these interventions are not part of the comprehensive project for rehabilitating these units, as envisaged in the Energy Strategy.

According to data from the Ministry of Economy, the contract with the consortium for implementing the rehabilitation and modernization project for Unit A3 is expected to be signed during 2026. Meanwhile, implementation of the electrostatic precipitator and DeNOx project and modernization of the turbine for Unit B1 are planned for the period April – December 2026, while Unit B2 is expected to be refurbished during the period April –November 2027.¹⁷ The delays in implementing the project were caused by the bankruptcy of one of the members of the consortium responsible for implementation, as well as by requests for additional costs submitted by the economic operator.

Failure to implement these investments jeopardizes the reliability of the energy system, as the generation units will continue operating with aging equipment, increasing the likelihood of faults and unplanned outages and reducing capacity availability.¹⁸ At the same time, the delays jeopardize compliance with environmental standards, as the lack of modernization measures, such as electrostatic precipitators and DeNOx systems, increases the risk of exceeding the emission limits established under the EU Industrial Emissions Directive.¹⁹

¹⁵ Kosovo Energy Corporation J.S.C. [The overhaul of Unit B1 was successfully completed ahead of schedule](#). 2025

¹⁶ Ibid. [An important project at TPP Kosova A was successfully completed](#). 2024

¹⁷ Based on data obtained from the Ministry of Economy, Department of Energy.

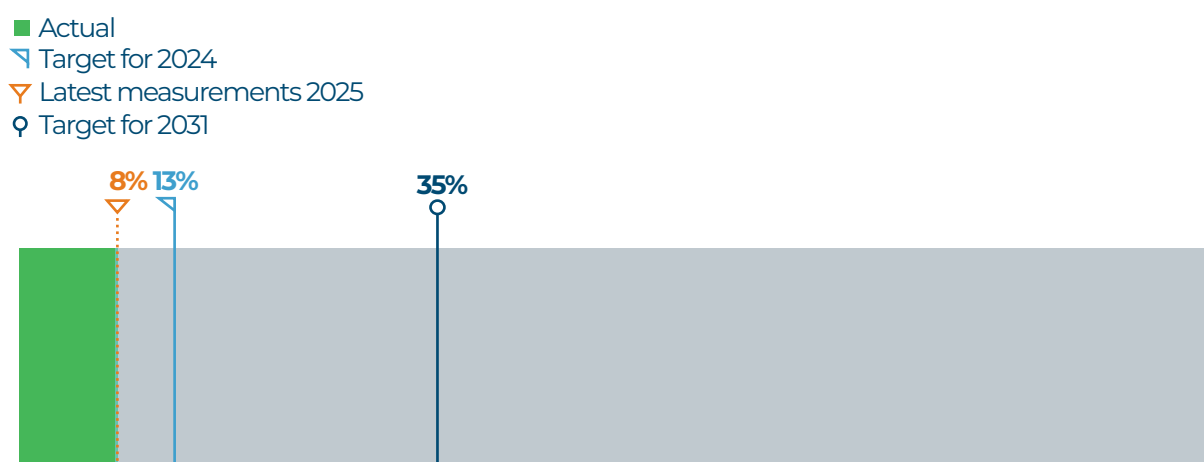
¹⁸ Ministry of Economy, [Energy Strategy of the Republic of Kosovo 2022-2031](#), p. 18

¹⁹ For more information on the requirements of the Directive, see EU Directive [2018/2022](#)

Objective II. Decarbonization and promoting renewable energy

Renewable Energy Sources (RES) constitute a key alternative for energy diversification and the gradual decarbonization of Kosovo's energy system.²⁰ The long-term goal is to achieve a complete coal phase-out by 2050, as coal is currently the country's main source of energy.²¹ According to the latest data, the RES share in electricity consumption is 8%, representing an increase of only 1 percentage point compared with the 2021 baseline. This figure remains far from the target envisaged in the Energy Strategy for 2024, which specifies that the minimum RES share in electricity consumption should be 13%.²² Kosovo also remains far below the EU level, where the RES share in electricity generation averages 47.2%.²³

Figure 4. Share of Renewable Energy Sources (RES) in Electricity Consumption (%)



Source: Ministry of Economy

Specific objective: Promoting renewable energy in electricity consumption

Furthermore, the total RES capacity envisaged to reach 490 MW by 2025 has not been achieved. Currently, the installed RES capacity at the national level stands at 330 MW.²⁴ Although Kosovo has experienced a gradual increase in RES capacity in recent years, this increase is still insufficient to meet the objectives of the Energy Strategy and enable Kosovo to catch up with the countries of the region in terms of RES capacity.²⁵

The gradual increase in RES generation capacity has been driven primarily by the SOWI Kosovo wind turbines, which became operational in 2021 and whose generation capacity, according to the latest data, is 103.41 MW.²⁶ The total installed capacity of hydropower plants and wind turbines is equivalent to 202.98 MW. Several RES projects with a combined capacity exceeding 700 MW²⁷ are currently underway, most of which remain at the administrative stages of obtaining licenses or permits, without construction having started on site. Meanwhile, as part of efforts to increase

²⁰ Ministry of Economy, *Energy Strategy of the Republic of Kosovo 2022-2031*

²¹ Ibid.

²² Ibid.

²³ Eurostat, *47% of EU's electricity came from renewables in 2025*, 2026

²⁴ This also includes prosumers.

²⁵ International Renewable Energy Agency (IRENA), *Renewable Energy Statistics 2025*.

²⁶ Energy Regulatory Office (ERO), *Annual Balance of Electricity and Thermal Energy for 2025*, p. 7

²⁷ International Monetary Fund (IMF), *Republic of Kosovo: 2026 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for the Republic of Kosovo*, IMF Staff Country Reports 2026

RES capacity and achieve the objectives envisaged in the Energy Strategy, Kosovo's first 100 MW solar auction was completed in 2024. The auction was won by a consortium of four companies from Switzerland, Germany and Kosovo, at a price of 48.88 EUR/MWh.²⁸ According to sources from the Ministry of Economy, the winning bidder is scheduled to begin generation in October 2026, and this deadline may be extended until May 2027 at the latest. However, data from the field show that construction of this solar park had still not begun during 2025 or the first half of 2026. According to ME, the administrative part of the process is being finalized, including the engineering, procurement and construction contract. Furthermore, the Municipality of Rahovec, where the park will be constructed, has completed the procedures for allocating the land for use for a period of 34 years. Despite the completion of these procedures, construction of the park has still not begun and, according to several sources, disagreements among the investors are one of the main reasons for this delay.²⁹ Furthermore, procedures have begun for the 100 MW wind auction, for which the Ministry of Economy published the request for proposals for technical and financial bids at the end of 2025, following the completion of the prequalification process for three bidders.³⁰

Kosovo is still at an early stage and uses a process in which bidders compete by offering competitive prices, with the lowest-priced bid being declared the winner.³¹ According to the Ministry of Economy, unlike solar capacities developed under the so-called feed-in tariff, which reached a cost of 161.6 €/MWh, solar energy generated by the auction winner will have a price of 48.88 €/MWh.³² The contract under which this auction was conducted is based on a PPA, with plans for it to be converted into a CfD in the future.³³ PPAs are long-term agreements under which an energy producer agrees to sell energy to a buyer at a specified price. CfDs, meanwhile, are financial agreements with the state that protect the producer against losses arising from price fluctuations, meaning that they guarantee more stable revenues for the producer.³⁴

In Kosovo's case, the buyer (KOSTT in this instance) purchases the energy from the investor for a period of 15 years. The entire output is delivered to the grid, meaning that the investor does not need to seek customers independently because the energy is sold under the contract. If the market price is below the specified price, KOSTT covers the difference, while conversely, if the market price is above that level, the investor returns the difference.³⁵ Both auctions are very important for increasing the RES share and diversifying Kosovo's energy sector. The target for 2031 is for the RES share to reach at least 35%. However, the failure to meet the objectives to date makes this long-term target highly challenging to achieve.³⁶

28 The Renewable Energy Source in Kosovo (RESKosovo). [First Solar Auction in Kosovo](#).

29 Radio Free Europe. [Not a Single Panel in the Field: What Is Happening with the Multimillion-Euro Solar Park in Rahovec?](#)

30 The Renewable Energy Source in Kosovo (RESKosovo). [The 100 MW Wind Auction](#).

31 The Renewable Energy Source in Kosovo (RESKosovo). [Competitive Bidding Process](#). Internal Number 01-001-2023, 2023

32 The ceiling price proposed by ERO for this auction was 75 EUR/MWh, while the winner offered a price that was 35% lower. Ministry of Economy. [Clarification concerning the auction process for the construction of the 100 MW solar park](#), 2025

33 Contract for Difference (CfD)

34 European Parliament. [Overview of the diffusion of Power Purchase Agreements and Contracts for Difference across Member States](#), 2026, p.11

35 Energy Regulatory Office (ERO). This Power Purchase Agreement (PPA) will transition to the so-called Contract for Difference (CfD) once ERO confirms the establishment of a functioning "day-ahead" market. This transition is designed to ensure that the selected bidder is not adversely affected.

36 Ministry of Economy. Energy Strategy Implementation Programme 2026-2028.

According to EBRD, the conditions established by the PPA contract in Kosovo, together with bureaucratic procedures such as building permit requirements, property-related issues and other similar matters, cause investors to avoid direct financing from the government. They frequently distance themselves from this form of investment through auctions and seek other private forms of financing to implement their projects.³⁷ By contrast, Albania is transitioning toward the CfD model, a more open market system, under which half of the energy is sold to the domestic transmission operator at a price of 24.89 €/MWh, while the other half is sold on the free competitive market.³⁸ This transition, based on a methodology supported by EBRD, ensures stability and attractiveness for investors, as well as preparation for integration into the European market before Albania's accession to the EU.³⁹

According to the Ministry of Economy, the main reasons that have delayed the implementation of RES projects are: delays in procedures and permits, limited grid capacity, property-related challenges and other similar issues.⁴⁰ This situation, where projects require a long time to be implemented, also indicates a lack of a more proactive approach by government institutions to undertake reforms that simplify licensing processes, eliminate institutional bureaucracy and provide fiscal and other incentives for investors.

Table 1. Some existing RES projects in Kosovo, by implementation progress

Projects	Project type	Capacity	Implementation stage
Kramovik project through auction	Solar	100 MW	At the administrative stage
KEK solar park project	Solar	100 MW	At the initial/conceptual stage
Wind energy project through auction	Wind	100 MW	At the administrative stage
Zatriqi 1 and 2 projects	Wind	70 MW in total, 35MW each	Completed (enters operation in July 2026)
SEGE project in Bec	Solar	150 MW	Under construction
Project in Istog	Solar	150 MW	At the initial/conceptual stage
Project in Junik	Solar	100 MWp	At the initial/conceptual stage

Source: ERO, KEK, EBRD

During 2025 alone, according to ERO data, following the completion of projects under authorizations issued by the ERO Board and their technical acceptance, six solar-panel projects with a total installed capacity of 21.48 MW entered commercial operation. Furthermore, during 2025, ERO reviewed applications concerning the generators of self-generating consumers, authorizing the construction of generation capacities for self-consumption for a total of 283 projects, with a combined installed capacity of 11 MW.⁴¹

³⁷ Information from an interview with EBRD representatives.

³⁸ SEELegal. *Photovoltaic Park of Karavasta – SEE Legal*

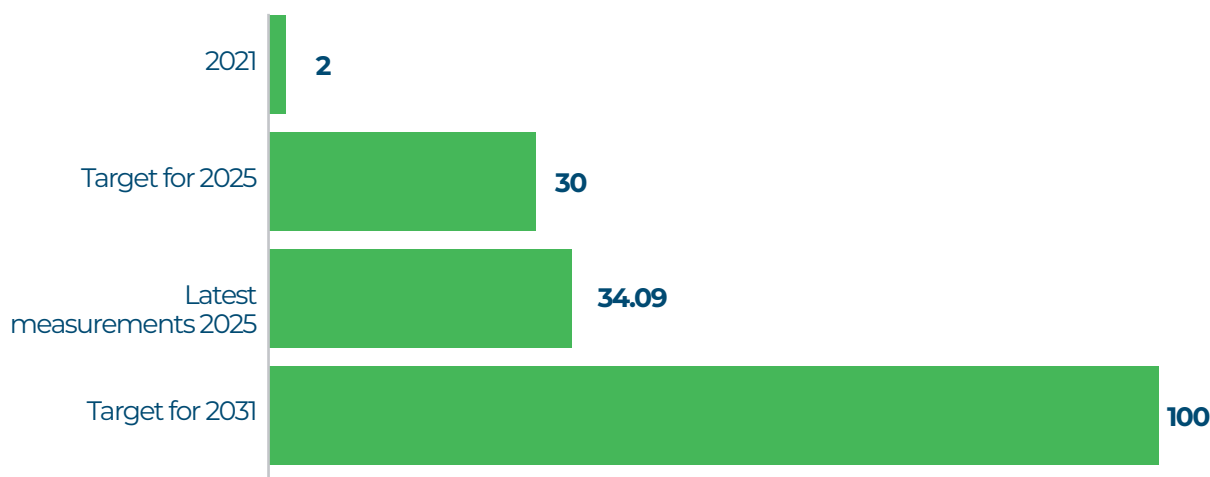
³⁹ Energy Community. *Albania moves closer to a fully market-based support scheme for renewables*, 2025

⁴⁰ Information from an interview conducted with representatives of the Ministry of Economy.

⁴¹ Energy Regulatory Office (ERO). *Annual Report 2025*, p. 10-11

Unlike overall RES capacity, the capacity of prosumers has increased considerably in recent years, reaching 34 MW and exceeding the target of 30 MW envisaged for 2025. By comparison, this capacity stood at only 2 MW⁴² in 2021. According to ERO, the increase in prosumer capacity is primarily the result of government incentives to subsidize RES generation capacities, including financial support for solar panels, the facilitation of administrative procedures and improvements in electricity-grid connections, which have encouraged individuals to invest more and increase their energy independence. Furthermore, research shows that additional factors contributing to the increase in the number of prosumers in recent years include the declining costs of photovoltaic technologies, which have made investments in renewable capacities more financially attractive even for small businesses.⁴³ At the same time, simplifying grid-connection procedures and introducing supporting metering mechanisms have reduced both administrative and technical barriers to market entry.⁴⁴ The findings also show that increased awareness of long-term energy savings and concerns regarding energy security, including as a consequence of energy market liberalization, have further encouraged users to invest in decentralized energy-generation systems, particularly in solar energy.⁴⁵

Figure 5. Capacity of prosumers



Source: Energy Regulatory Office (ERO)

A comparison with countries in the region, such as Albania, shows that renewable energy auctions have gained considerable momentum in recent years. The first 140 MW solar energy auction was organized in 2020, followed by the 222.5 MW wind energy auction, which was completed in 2023. Most recently, at the beginning of 2024, a new 300 MW solar auction was launched. Overall, these initiatives represent approximately 640–660 MW of new renewable energy capacity, demonstrating a sustained commitment to the energy transition.⁴⁶ According to EBRD, which also supported Albania's first wind energy auction, this auction represents a success story for the entire Western Balkans region. It achieved a record-low price of 44.88 EUR/MWh, attracted domestic and international investors and significantly increased

⁴² The data were obtained from ERO through a request for access to public data.

⁴³ Pozhegu, D., Neziri-Vela, Sh., et al. *From Consumer to Prosumer: Unlocking the Potential of Solar Energy in Kosovo's Energy Market*. 2025

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ European Bank for Reconstruction and Development (EBRD). *Albania announces results of first onshore wind auction*. 2023

market competitiveness in the clean-energy sector.⁴⁷ Nevertheless, overall, the projects selected through auctions in Albania remain at relatively early stages of implementation.⁴⁸ Only a limited number of projects have secured full financing and entered the construction or implementation stage, while most recently awarded solar projects remain at advanced stages of development, primarily undergoing permitting and securing financing. Wind energy projects, in particular, are expected to enter the implementation stage later in the decade, indicating that a considerable part of the portfolio remains at the planning and development level rather than at the completion or operational stage.

At the same time, other countries in the region are also taking similar steps. Serbia has conducted two auctions to date, one in 2023⁴⁹ and another in 2024⁵⁰, covering combined solar and wind energy projects with a total capacity of approximately 900 MW.⁵¹ Compared with Albania, Serbia's portfolio of auctioned projects is considered more advanced, as several large projects have already secured financing and are under construction or close to beginning construction, particularly those from the initial auction rounds.⁵² One 94 MW wind farm has successfully begun generation.⁵³ Nevertheless, Serbia also faces certain non-technical challenges, including permitting issues, institutional coordination and procedural matters, which may result in partial delays without altering the fact that Serbia has a more consolidated portfolio that is closer to implementation than those of other countries in the region.

Montenegro, on the other hand, launched its first 250 MW solar energy auction in 2025.⁵⁴ Meanwhile, North Macedonia has not yet conducted such auctions but is drafting the relevant legal and regulatory framework, indicating preparations for future steps in this direction.⁵⁵

Overall, renewable electricity capacities in the countries of the region have increased in recent years, although at different rates of development. Serbia maintains the highest level of capacity and shows steady growth. Albania is also following a similar trend, with a gradual expansion of its capacities. Montenegro remains relatively stable, with minimal year-on-year changes, while North Macedonia has recorded more pronounced growth in recent years. Despite its gradual growth in recent years, Kosovo continues to have the lowest renewable electricity capacity in the region.

⁴⁷ Ibid.

⁴⁸ Information provided by EBRD in Kosovo.

⁴⁹ European Bank for Reconstruction and Development (EBRD). [Serbia launches first 450 MW renewables auction, designed with EBRD support](#). 2023

⁵⁰ Ibid. [Serbia completes second renewables auction with EBRD support](#). 2025

⁵¹ Ibid.

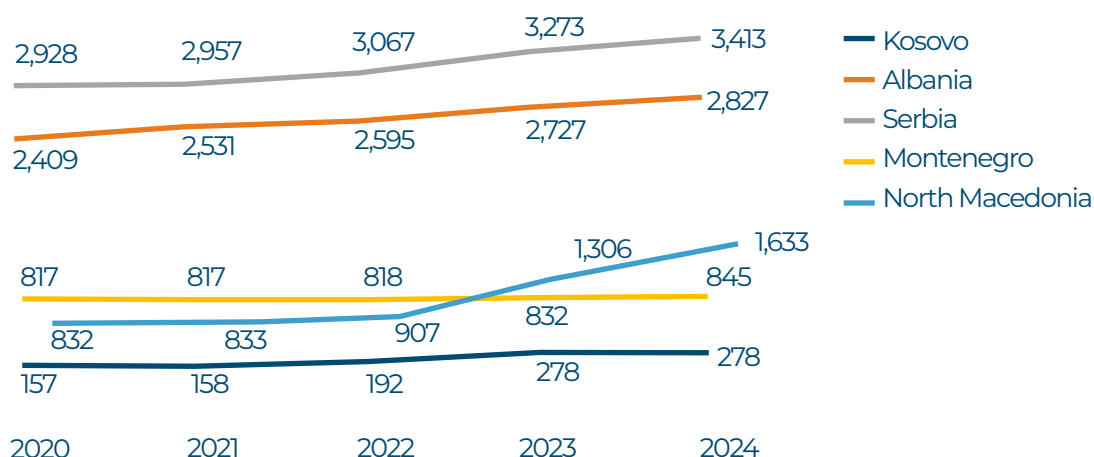
⁵² Information provided by EBRD in Kosovo.

⁵³ Bajic, V. [Serbia's Pupin wind farm starts trial operation](#). 2024.

⁵⁴ Ibid. [EBRD supports first renewable energy auction in Montenegro](#). 2025

⁵⁵ Albanian Energy Association (AEA). [North Macedonia's draft law envisages renewable energy auctions for CfDs](#). 2025

Figure 6. RES capacity in electricity generation in the region (MW), 2020–2024



Source: International Renewable Energy Agency (IRENA)

Specific objective: Promoting the use of sustainable renewable energy in heating

The heating sector is characterized by the dominance of individual systems, while district-heating coverage remains very limited, reaching only approximately 3–5% of settlements and, consequently, most households rely on standalone and often inefficient appliances for heating and cooking, mainly using electricity, firewood and, in some cases, coal.⁵⁶ According to the Energy Strategy of the Republic of Kosovo 2022-2031, the integration of RES such as biomass, geothermal energy and solar heat pumps into district heating systems was envisaged, with the aim of increasing installed capacity from 15 MWth in 2021 to at least 65 MWth by 2025. However, the 2025 data show that this capacity remained unchanged at the baseline level of 15 MWth, reflecting a significant failure to meet the established objectives. This lack of progress indicates that the development of RES-based district heating projects has been limited due to insufficient investment and RES projects, institutional and regulatory barriers and dependence on donor financing. In this context, the continued stagnation suggests a need to review not only the implementation mechanisms but also the strategic expectations envisaged in the Strategy document. One project currently underway that will contribute to achieving this objective is the “Solar 4 Kosovo II” project. It is expected to be among the largest solar plants in Europe and the first in the region in terms of capacity, financed by KfW and EBRD through the Western Balkans Investment Framework (WBIF) and is expected to be completed in February 2028.^{57,58} The project will use clean solar energy to produce heat by installing solar panels over an area of 63,000 m². Through this integration of the solar energy and cogeneration systems, an additional thermal capacity of 50 MWth is expected to be created, benefiting more than 38,000 new consumers.⁵⁹

⁵⁶ Organization for Economic Co-operation and Development (OECD). *Multi-dimensional Review of the Western Balkans*. 2022. p. 483.

⁵⁷ Termokos. *Solar 4 Kosovo II*.

⁵⁸ Western Balkans Investment Framework. *Kosovo, Solar4Kosovo – Photovoltaic Plant*. 2026

⁵⁹ Ibid.

Objective III. Increasing energy efficiency

In the Energy Strategy 2022-2031, improving energy efficiency is an indicator directly linked to the aim of ensuring that the country has more manageable demand, lower costs and greater security of supply.⁶⁰ The level of final energy consumption is important because it indicates how much energy actually reaches end users, such as households, transport, industry and services, after losses in generation and the network have been accounted for. The aim is to limit final energy consumption to no more than 1,877 ktoe by 2031. According to the latest data for 2024, current final energy consumption is equivalent to 1,472.72 ktoe, although energy consumption has increased in recent years. Nevertheless, given that the target for 2024 was for consumption not to exceed 1,709 ktoe, the target for that year was achieved.

Figure 7. Level of final energy consumption



Source: Ministry of Economy

Furthermore, the cumulative energy savings achieved in the building sector are a direct indicator of the impact of energy efficiency measures, such as energy renovations, insulation, window replacement, improvements to heating and cooling systems, and the modernization of equipment in public, private and commercial buildings. In the Energy Strategy 2022-2031, this objective is linked to the aim of reducing energy demand and expenditure and easing pressure on supply, particularly during the heating season. According to the 2025 data, current savings are equivalent to 36.01 ktoe, indicating that progress has been made compared with the 2021 baseline, when the level of savings was only 2.7 ktoe, and that the target of 17.76 ktoe envisaged by 2024 has been exceeded.

— Specific objective: Improving the energy efficiency of buildings

By contrast, the objective of having at least 10 nearly zero-energy buildings by 2024 has not been achieved. According to the Ministry of Economy, no buildings currently meet this standard because reporting on the indicator depends on the rollout of energy performance certification and the preparation of a plan for these buildings, both of which are still underway. Kosovo is preparing secondary legislation with support from GIZ and a Draft Building Renovation Strategy with support from LuxDev. Once the energy performance certification system is fully operational, including the training and licensing of energy assessors, certification will begin for

⁶⁰ Ministry of Economy, [Energy Strategy of the Republic of Kosovo 2022-2031](#)

new and existing buildings and for buildings undergoing major renovation. Only after these steps have been completed will the conditions be in place to measure and report nearly zero-energy buildings under this indicator.

On the other hand, despite the increase in energy consumption, cumulative savings in public buildings⁶¹ resulting from energy efficiency investments provide positive indications regarding energy efficiency.⁶² Since 2020, when the Kosovo Energy Efficiency Fund (KEEF) was established, various energy-efficiency measures have been undertaken. At the local level alone, KEEF has implemented measures in 85 buildings, including insulation, the replacement of doors and windows and the modernization of heating systems, with a total value of 13.5 million EUR, financed by the EU, the World Bank and the Government of Kosovo.⁶³ Nevertheless, directing energy efficiency investments toward the public sector is insufficient to achieve the target of limiting final energy consumption to no more than 1,877 ktoe by 2031.⁶⁴

According to OECD, households consume approximately 38% of final energy, primarily due to inefficient heating and uninsulated buildings.⁶⁵ The Energy Strategy 2022-2031 envisaged energy savings in the residential sector reaching 14.46 ktoe by 2024. The latest data show that savings in these buildings are equivalent to 14.22 ktoe, indicating that the objective has almost been achieved. Nevertheless, given that the target is for these savings to reach 232.5 ktoe by 2031, achieving the long-term objective at this pace appears challenging. This challenge is also influenced by the fact that energy efficiency investments have been directed more toward public buildings than residential buildings. According to certain calculations, more than 771.1 million EUR has been invested in public buildings, compared with only 288.8 million EUR in the residential and commercial sectors.⁶⁶

To address this issue, loans and subsidies have been provided through KEEF for investments in insulation, windows, heat pumps and other systems that reduce energy consumption.⁶⁷ From the 2023 and 2024 calls alone, a total of 3,875 households benefited from these energy efficiency subsidies.⁶⁸ Nevertheless, measurements show that, to achieve the energy savings envisaged in the Strategy, the Government of the Republic of Kosovo, together with financial institutions, the private sector and donors, will need to invest approximately 322 million EUR in total, or an average of approximately 32 million EUR per year.⁶⁹ These investments include renovating buildings by insulating walls, roofs and floors, replacing old windows with energy-efficient windows and installing highly

61 According to data from the Ministry of Economy, the level of savings was envisaged to reach 3.3 ktoe by 2024, whereas current values indicate energy savings of 21.79 ktoe in these buildings. Due to the lack of a precise methodology for measuring savings in public-sector buildings, these data remain supplementary information only.

62 Regarding improvements in the energy efficiency of public buildings, EBRD has allocated 50 million EUR, which are intended for the renovation of approximately 400 public buildings and to achieve energy savings of 30–50%. The project also includes 12.6 million EUR from the Government of Kosovo, 7 million EUR from the European Union and 3 million EUR from the Danish Fund for Kosovo, bringing the total financing value to 86 million EUR. European Bank for Reconstruction and Development (EBRD). [EBRD provides €50 million to boost energy efficiency in Kosovo's public buildings](#). 2025.

63 This includes school buildings, family medicine centers, sports and cultural centers, etc.

64 GAP Institute. [Governments' Support to Improving Energy Efficiency as a Response to Mitigating \(Future\) Energy Shocks: Western Balkans](#) 6.

65 Organization for Economic Co-operation and Development (OECD). [Multi-dimensional Review of the Western Balkans](#). 2022

66 GAP Institute. [Governments' Support to Improving Energy Efficiency as a Response to Mitigating \(Future\) Energy Shocks: Western Balkans](#) 6. P. 6

67 Green Economic Financing Facility (GEFF). [Increasing energy efficiency in Kosovo's buildings](#).

68 Based on data from the Kosovo Energy Efficiency Fund (KEEF).

69 GAP Institute. [Governments' Support to Improving Energy Efficiency as a Response to Mitigating \(Future\) Energy Shocks: Western Balkans](#) 6. P. 43

efficient heating and hot-water equipment.⁷⁰ Given that the residential sector is the country's largest energy consumer, these investments need to be intensified because they deliver rapid results in achieving energy savings.

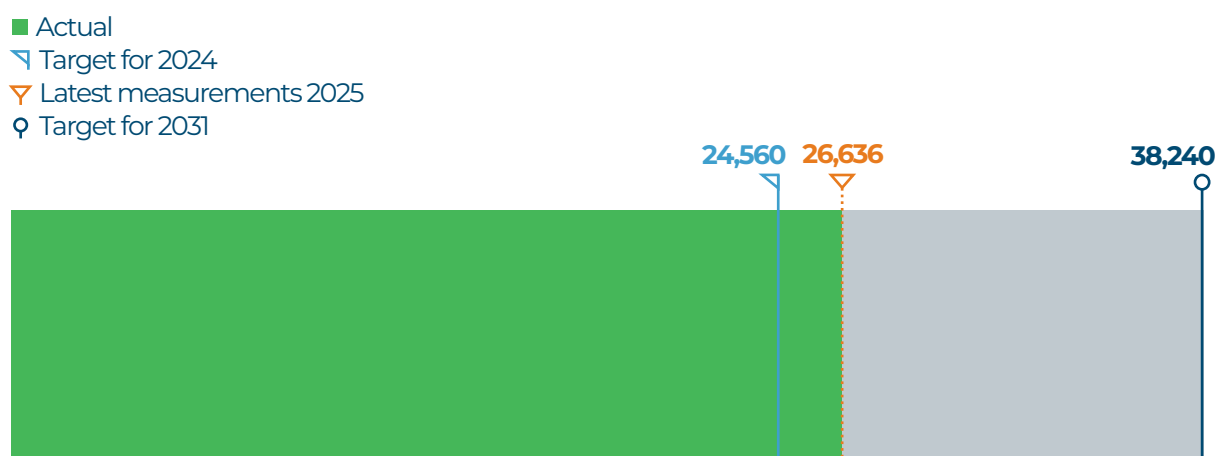
Energy distribution losses (13.7%) remain challenging and limit the possibility of investing in energy efficiency in the residential sector. Kosovo has considerable potential for savings through reducing network losses and investing in the energy efficiency of buildings.⁷¹

An important element of energy efficiency investments is their impact on stimulating the creation of new jobs much more rapidly than direct employment measures, due to the labor intensity required for installing equipment.⁷² Calculations show that implementing these energy efficiency investment measures creates approximately seven new jobs for every million EUR saved.⁷³ If the Energy Strategy 2022-2031 is implemented in accordance with its objectives and plans, energy efficiency investments alone could enable the creation of more than four thousand new jobs in Kosovo.⁷⁴

— Specific objective: Promotion of efficient cogeneration and efficient district heating systems

As part of the objective of increasing energy efficiency under the Energy Strategy 2022-2031, an increase in cogeneration capacity of DH Termokos and in the number of consumers connected to the district heating systems in Prishtina and Gjakova was also envisaged. According to data from ERO, Termokos's cogeneration capacity is 140 MWth, in line with the target for 2024.⁷⁵ Nevertheless, according to the Ministry of Economy, the project to double this capacity has not yet begun. Meanwhile, the number of consumers connected to district heating has reached 26,636 (25,752 at Termokos and 884 in Gjakova) exceeding the target of 24,560 consumers established in the Strategy, which indicates that this objective has been successfully achieved.

Figure 8. Number of consumers connected to district heating systems



Source: Energy Regulatory Office (ERO)

⁷⁰ Ibid. p.29

⁷¹ Institute for Energy Economics and Financial Analysis (IEEFA). *Beyond coal: Investing in Kosovo's energy future*. 2020

⁷² GAP Institute. *Governments' Support to Improving Energy Efficiency as a Response to Mitigating (Future) Energy Shocks: Western Balkans 6*. P. 51

⁷³ Ibid. p. 53

⁷⁴ GAP Institute. *Emigration and the Labor Market in Kosovo*. 2025. p. 17

⁷⁵ The data were obtained from ERO through a request for access to public data.

Objective IV. Strengthening regional cooperation and market functioning

— Specific Objective: Strengthening regional cooperation

In the context of regional cooperation, several steps have been taken toward integration into regional mechanisms. Energy market liberalization was also achieved under this objective, beginning in June 2025.⁷⁶ Furthermore, integration with the Albanian market was established as a high-priority objective and, consequently, electricity purchases through the Albanian Power Exchange, known as ALPEX and jointly established by KOSTT and OST, began on 1 February 2024.⁷⁷⁷⁸ Nevertheless, trading performance through the power exchange remains limited because the volume of electricity traded is still low. According to ERO, trading continues to be dominated by bilateral contracts, which are primarily long-term and cover both supply and network losses, leaving little room for trading through the power exchange.⁷⁹

Furthermore, according to the latest data, cross-border capacity remains at 22–24% for exports and 24–26% for imports, whereas it was envisaged to reach at least 28–30% in each direction by 2024. This is because no new cross-border interconnector has been constructed or commissioned in recent years. The long-term objective of cooperation with other countries is for Kosovo to join the pan-European energy market by 2031, where energy will be regulated and traded in accordance with common EU and regional rules.⁸⁰

— Specific objective: Training in energy-related fields and women's inclusion

An important element of the energy transition is human-capacity development, particularly through training young people in energy-related fields and increasing women's participation in the sector. Education and qualifications play a key role in achieving climate objectives. Studies show that only half of the positions in the solar energy sector require a university education, meaning that many positions can be filled by individuals who have completed vocational education. Nevertheless, greater financial and technical support is needed to establish centers focusing on vocational training for the energy sector.⁸¹

Although the Energy Strategy 2022-2031 document does not establish specific targets concerning the number of graduates, the Energy Strategy Implementation Programme document aims for the number of graduates to reach 230 by 2031. The 2021 baseline shows that a total of 169 individuals graduated in fields related to the energy transition. According to data for the 2024/25 academic year, this number increased to 384, including graduates from vocational secondary schools, universities and the KEDS Academy.⁸²⁸³

⁷⁶ Energy Regulatory Office (ERO). Public Notice on Energy Market Liberalization in Kosovo

⁷⁷ Ministry of Economy, Energy Strategy of the Republic of Kosovo 2022-2031

⁷⁸ OST holds 57.25% of the shares, while KOSTT holds 42.75%. KOSTT. Business Plan for 2025.

⁷⁹ Energy Regulatory Office (ERO). Annual Report 2025.

⁸⁰ Ibid. p. 19

⁸¹ GAP Institute. Emigration and the Labor Market in Kosovo. 2025. p. 17

⁸² Of this number, 127 graduated from vocational secondary schools, 215 from the KEDS Academy, 28 from the Faculty of Electrical and Computer Engineering (FECE) and 14 from the Faculty of Mechanical Engineering (FME).

⁸³ The data were obtained from the Ministry of Economy (Department of Energy).

Furthermore, increasing women's employment in the energy sector is an important indicator established in the Energy Strategy. Women accounted for 9% of those employed in the sector in 2021, while the 2025 data show that this percentage increased to 20%. This means that the 2024 target of 11% women's employment has been exceeded, bringing the sector closer to the 2031 objective.⁸⁴

Figure 9. Share of women employed in the energy sector



Source: Ministry of Economy

This increase in women's employment and representation in the energy sector has been influenced by concrete initiatives that have created more opportunities for women, such as the MCC/MCA Kosovo "Energy for Equality" project, which aims to empower women through gender-equitable practices in companies, networking, mentoring, training, technical assistance and small grants for employers.⁸⁵ Furthermore, Solarit Academy, supported by Helvetas Kosovo through the EYE project, aims to empower women in the renewable energy sector by providing specialized training and mentoring to help them enter and advance within the energy industry.⁸⁶ The "Women in Energy and Mining" (WEM) network⁸⁷, operating within the American Chamber of Commerce in, also serves as a platform for advocacy, professional development and networking. Together, all these initiatives have helped women enter and advance within a sector traditionally dominated by men.

⁸⁴ Ibid.

⁸⁵ Millenium Challenge Account- Kosovo. Minutes of the 9th Board of Directors Meeting. 2024

⁸⁶ Helvetas. Empowering Women in Kosovo's Solar Panel Industry. 2025

⁸⁷ American Chamber of Commerce (AmCham). Energy and Mining Committee.

Objective V. Protecting and empowering consumers

The Energy Strategy 2022-2031 envisaged the introduction of two support schemes for vulnerable consumers by 2024 and four schemes by 2031. Currently, this objective has been achieved, as three main schemes are operational: subsidies for the electricity bills of low-income households, support for investments in energy efficiency, such as insulation and energy-efficient appliances, and an emergency program providing additional subsidies during the energy crisis.⁸⁸ However, there is no structured energy poverty program that targets vulnerable groups in this regard according to a clear legal methodology.

— Specific Objective: Empowering consumers

The Energy Strategy of the Republic of Kosovo 2022-2031 envisages increasing the number of energy-related awareness and information campaigns from 6 in the baseline year (2021) to at least 9 campaigns per year. According to the latest data, a total of 17 campaigns were conducted during 2024 alone, thereby exceeding the envisaged annual target. Energy efficiency campaigns were organized primarily by the Ministry of Economy and KEEF, with the support of the Government of Kosovo and the European Union. These campaigns included messages on saving energy during the crisis and information on subsidies for home insulation and energy-efficient appliances, disseminated through the media and social networks. The main objective was to reduce energy consumption and increase citizens' awareness of its more efficient use.

— Specific objective: Protecting human health and the environment

Compared with the targets for 2024, emissions from Kosovo's power plants exceed the targeted limits in certain cases, particularly for dust and NO_x, especially at TPP Kosova B, while SO₂ emissions generally remain within the permitted limits. Exceedances have also been recorded at TPP Kosova A and are more pronounced at Unit A3, while Units A4 and A5 are closer to the established standards. These discrepancies are primarily related to delays in implementing projects and refurbishing existing units, also contributing to the failure to achieve the CO₂ reduction targets. Projects for reducing SO_x emissions are expected to be implemented by 2028 (see Table 1 in the Annex).

⁸⁸ Ministry of Economy. 200 Families in Need to Benefit from Energy-Efficiency Measures. 2025

Carbon Border Adjustment Mechanism (CBAM)

The Carbon Border Adjustment Mechanism (CBAM) is an EU policy that places a carbon cost on certain imported goods based on the emissions generated during their production, thereby ensuring that imports face carbon prices similar to those applied to goods produced in the EU and helping to prevent carbon leakage.⁸⁹ The initial sectors covered by CBAM include carbon-intensive goods that are most exposed to carbon leakage, including: electricity, iron and steel, aluminium, cement, nitrogen fertilizers and hydrogen.⁹⁰

This mechanism forms part of the EU's new energy legislation, whose main objective is to reduce carbon emissions by at least 55% compared to 1990. No country is exempt from CBAM unless it participates in the EU Emissions Trading System (EU ETS⁹¹) or has domestic regulations establishing a carbon price for the aforementioned sectors, with the corresponding amounts subsequently deducted from the EU tariff. The carbon price may change daily and, according to the latest data, one tonne of carbon costs approximately 66 EUR.⁹²

The Kosovo Energy Strategy considers CBAM a high-priority objective and suggests introducing a national emissions trading scheme, with a gradual increase in the minimum price so that it aligns with EU ETS prices by 2030.⁹³ Several carbon-price modeling scenarios have been presented in relation to this matter: the first envisages a gradual increase to 14% in 2025, followed by a linear increase through 2031, without CBAM; the second begins at 15% in 2025 and increases gradually through 2030; while the third and more ambitious scenario begins at 15% in 2025, reaches 35% in 2030 and 100% in 2035, with variants both with and without CBAM.⁹⁴ All three scenarios are used to analyze the impact on the energy sector and do not constitute binding policies in Kosovo.

Table 2. Carbon-price modeling scenarios according to the Energy Strategy 2022-2031

	Price increase	Increase trajectory	CBAM
Scenario I	14% in 2025, then linear increase	Gradual pricing until 2031	No CBAM is foreseen
Scenario II	15% in 2025, then linear increase	Gradual pricing until 2030	Not specified
Scenario III	15% in 2025 35% in 2030 100% in 2035	Accelerated phased increase	With and without CBAM

The main aim of the carbon tax scheme, based on the Energy Strategy document, is to reduce emissions and avoid CBAM payments by collecting revenues from energy producers, retaining them within the country and accumulating them in a Just Transition Fund. The use of this Fund will be defined at a later stage and may be

⁸⁹ Energy Community, [Carbon Border Adjustment Mechanism](#). Ministry of Economy, [Energy Strategy of the Republic of Kosovo 2022-2031](#).

⁹⁰ Carbon Market Watch. [EU Carbon Border Adjustment Mechanism \(CBAM\)](#). 2024

⁹¹ European Commission. [EU ETS, EU Emissions Trading System](#).

⁹² Abnet K., Twidale S, [EU Carbon Prices Slide After Lawmakers Signal Market Intervention](#). 2026

⁹³ Ministry of Economy, [Energy Strategy of the Republic of Kosovo 2022-2031](#)

⁹⁴ For further details, see Table 1 on page 9 of the Energy Strategy 2022-2031.

dedicated to promoting renewable energy, training and retraining the workforce and supporting vulnerable consumers.⁹⁵

Nevertheless, despite the envisaged objectives, according to the Ministry of Economy, there have been no developments to date concerning the gradual implementation of carbon pricing in the country.⁹⁶ Other countries in the Western Balkans region are in a similar situation.⁹⁷ Montenegro is the only country with a functioning system, having implemented an emissions trading system (ETS) since 2020, although with relatively low carbon prices. Bosnia and Herzegovina, on the other hand, is preparing an ETS that is expected to begin around 2026–2027. Albania plans to introduce a hybrid model (a carbon tax and ETS) from 2027–2028. Serbia aims to implement a carbon tax beginning in 2027, followed by a subsequent transition to an ETS. North Macedonia plans to introduce a carbon tax from 2028. Overall, the region is aligning with EU climate policies but remains primarily at the planning or initial implementation stage, with only limited levels of carbon pricing applied in practice.

According to data from Kosovo Customs, approximately 34% of Kosovo's exports during 2025 were destined for EU states, while 11.8% of these exports (valued at approximately 37 million EUR) were carbon-intensive products.⁹⁸ Iron and steel products are expected to be affected most by the carbon tax because they account for approximately 72% of all Kosovo exports affected by CBAM, followed by aluminium, a sector representing approximately 27% of the total value of Kosovo's exports to EU states. The cost of exporting products for producers operating in these sectors will increase as a result of the obligation to cover the additional carbon tax.

EU countries began implementing CBAM in January 2026.⁹⁹ Under the EU ETS, certain sectors receive free allocation of allowances to address the risk of carbon leakage. Initially, only a small portion of the cost of free EU ETS allowances will be replaced by CBAM, beginning at 2.5%. This percentage will increase gradually each year under the established scheme, reaching 48.5% in 2030 and continuing to increase until it reaches 100% in 2034.¹⁰⁰ In that year, all free allowances will be replaced, and importers will pay the full cost of the carbon emissions embodied in their goods. This gradual process ensures a smooth transition for industry and importers.¹⁰¹

Table 3. CBAM Payment according to EU ETS allowances

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034
CBAM Payment (%)	2.50%	5.00%	10.00%	22.50%	48.50%	61.00%	73.50%	86.00%	100%

Source: European Parliament

If the governments of the Western Balkans had begun preparing for CBAM earlier, instead of allowing the EU to benefit from their electricity exports, they could have generated revenues for their energy transition by introducing carbon pricing

⁹⁵ Ibid.

⁹⁶ Ministry of Economy. *Progress Report for the Period January – June 2025*. 2025

⁹⁷ Energy Community. *CBAM- Readiness Tracker*. Table 11, p.48, 2025

⁹⁸ Kosovo Customs. *Trade Balance January–December 2025*.

⁹⁹ European Union. *CBAM successfully entered into force on 1 January 2026*.

¹⁰⁰ European Parliament. *Legislative Train. A European Green Deal*. p. 2. 2025

¹⁰¹ Ibid.

domestically.¹⁰² According to certain calculations, based on average annual emissions of 55.6 million tonnes of CO₂ during the 2017–2022 period in the carbon-intensive countries of the region, a price of 75 EUR per tonne could generate up to 4.2 billion EUR annually to support a just and sustainable energy transition.¹⁰³

In the context of the energy transition, an important role is played by guarantees of origin (GOs). These are electronic certificates demonstrating that a specified quantity of electricity has been generated from renewable sources.¹⁰⁴ Each guarantee of origin represents 1 MWh of energy generated, and no more than one certificate may be issued for each unit of energy; it remains valid for 12 months from the end of the generation period.¹⁰⁵ These certificates increase transparency in the energy market and enable consumers and companies to demonstrate that the energy they use comes from clean sources.¹⁰⁶

The Energy Regulatory Office (ERO) has been designated as the issuing body responsible for issuing and managing Guarantees of Origin for electricity generated from renewable sources in Kosovo.¹⁰⁷ In November 2025, Kosovo became a full member of the Association of Issuing Bodies (AIB), which manages the European Energy Certificate System (EECS).¹⁰⁸ A regional system for Guarantees of Origin that also includes Kosovo has been developed within the Energy Community. This system aims to harmonize the rules and establish electronic registries for issuing and managing these certificates. However, Guarantees of Origin issued by Energy Community countries are currently still not automatically recognized in the EU market.¹⁰⁹ This means that certificates issued by Kosovo are also not recognized by EU Member States.

¹⁰² Bankwatch Network (CEE). A Perfect Storm. The Western Balkans power sector in the time of CBAM. 2025

¹⁰³ Ibid.

¹⁰⁴ Assembly of the Republic of Kosovo. Law No. 08/L-258 on the Promotion of the Use of Renewable Energy Sources. p. 4.

¹⁰⁵ Ibid., p. 42.

¹⁰⁶ Balkan Green Foundation. Green and Competitive. Leveraging Guarantees of Origin for Export Growth and Energy Transition in Kosovo. p. 13, 21.

¹⁰⁷ Energy Regulatory Office (ERO). Rules on Guarantees of Origin. 2025

¹⁰⁸ Ibid. Press Release. 2025

¹⁰⁹ Energy Community. Renewable Energy. Guarantees of Origin.

Challenges in implementing the Energy Strategy 2022-2031

The implementation of the Energy Strategy 2022-2031 in Kosovo has recorded significant progress, particularly in improving the reliability of supply, reducing network losses and increasing energy savings. These results have been achieved through investments in network modernization, energy efficiency measures and support for consumers. Nevertheless, despite these positive developments, implementation of the Strategy faces several structural and institutional obstacles that have slowed progress, particularly in the key components of the energy transition.

One of the main challenges is the slow development of RES generation capacities. Although steps have been taken, such as organizing solar and wind energy auctions, current capacities remain significantly below the established targets. Some of the main reasons include slow and lengthy administrative procedures, such as permit applications, limited network capacity for integrating new RES, property-related issues, a lack of coordination among institutions and financing difficulties. These barriers have caused Kosovo to fall behind the countries of the region in developing clean energy, making it more difficult to achieve the long-term decarbonization objectives. Furthermore, the lack of development in the district heating sector and the integration of RES into this sector constitute a continuing challenge. Clean-source heating capacity has remained unchanged, while most households continue to rely on inefficient forms of heating. This indicates a lack of investment and the existence of institutional and regulatory barriers that limit the development of this segment.

It is important to emphasize that achieving certain targets established in the Energy Strategy 2022-2031 does not necessarily imply substantial progress in transforming the energy sector. In certain cases, indicators may be met or exceeded through limited or fragmented interventions without reflecting structural changes in the system. For example, the increase in the number of prosumers, although positive in terms of decentralizing generation, does not automatically imply a sustainable transition of the energy system as a whole. Similarly, exceeding the target for the number of awareness campaigns does not necessarily guarantee a measurable improvement in consumer behavior regarding energy savings. It is therefore important that the assessment of progress in this Report be based not only on the achievement of indicators but also on an analysis of their actual impact on the functioning of the energy sector in general.

Another important challenge is the lack of progress in introducing carbon-pricing mechanisms. Although the Strategy considers this a key element for alignment with EU policies and addressing mechanisms such as CBAM, no concrete steps have been taken in this direction to date. This places Kosovo at a disadvantage compared with countries in the region that have already begun implementing or planning such schemes and increases the risk of additional costs for domestic exporters. At a deeper level, this lack of progress reflects not only delays in implementation but also the absence of an integrated approach to the energy transition. At the same time, inconsistencies between the strategic objectives and implementation measures, including the failure to introduce a domestic carbon tax, the slow pace of renewable energy development and delays in structural investments, suggest deeper institutional limitations in the ability to manage a just and long-term transition.

Furthermore, the Energy Strategy 2022-2031 does not cover the entire economy of the country, as sectors such as industry and transport are not included in the Strategy. Both sectors contribute significantly to climate change as major sources of emissions¹¹⁰ and large energy consumers.¹¹¹ As such, they are key to energy policymaking, as in the case of green industrial policies which, based on evidence, contribute to sustainable transport, reduce pollution and increase competitiveness.¹¹² In Kosovo, these sectors are addressed through separate policy frameworks, more specifically through the development of national strategies addressing their long-term plans. Furthermore, their decarbonization is integrated into the National Energy and Climate Plan 2025-2030.¹¹³ Nevertheless, according to EBRD, there is insufficient focus, particularly on the transport sector. Public transport, especially railways, has been identified as an area with considerable potential to support the green transition, but its development has progressed slowly, limiting its potential contribution to reducing emissions and energy dependency.

Delays in implementing investment projects remain a challenge, particularly regarding the rehabilitation and modernization of existing power plants. The projects concerning Units B1 and B2 of TPP Kosova B and Unit A3 of TPP Kosova A did not begin according to the planned timelines, primarily due to contractual problems, including the bankruptcy of economic operators and requests for additional costs. These delays not only jeopardize security of supply but also directly contribute to the failure to meet environmental standards and reduce emissions, making the transition slower and more costly.

Another challenge identified in the Energy Strategy 2022-2031 concerns its financing requirements, the extent to which they are reflected in the budget, and implementation capacity. The document sets out substantial planned investment requirements combining public and private financing and donor grants, which would exceed EUR 3 billion if implemented in accordance with the Strategy. By way of illustration, approximately EUR 390 million is envisaged for rehabilitating existing generation capacity, with a further EUR 350 million for energy efficiency.

Table 4. Costs of implementing the main components of the Energy Strategy 2022-2031

	Cost (million EUR)	Funding sources
Rehabilitation and reduction of the environmental impact of existing generation capacities	390	Public
New RES generation capacities	1,300	Private, public, grants
New joint capacities in neighbouring countries	200	Public, grants
Storage capacities (batteries)	200	Public, grants
Transmission network investments	90	Public, grants
Distribution network investments	230	Private

¹¹⁰ European Commission. [National Energy and Climate Plans](#).

¹¹¹ United Nations. [Sustainable Development Goals](#).

¹¹² GAP Institute. [A Framework for Green Industrial Policies in the Western Balkans](#). 2025

¹¹³ Ministry of Economy, [Energy Strategy of the Republic of Kosovo 2022-2031](#)

	Cost (million EUR)	Funding sources
Energy efficiency investments	350	Public, private, grants
Heating system investments	100-200	Public, grants
Consumer protection and supply, with a particular focus on vulnerable consumers	100-200	Public, grants

Source: Ministry of Economy

More specifically, rehabilitating the existing energy units represents one of the most costly components of the Strategy for the public budget, particularly for KEK. According to the Energy Strategy Implementation Programme 2026-2028, 88 million EUR is envisaged for Unit Kosova B1 (49.5 million from KEK and 38.5 million from EU grants) while approximately 38.5 million EUR is envisaged for Kosova B2, financed primarily through EU grants. Meanwhile, rehabilitation of Unit A3 of Kosova A is expected to cost approximately 137 million EUR and to be financed by KEK. For 2026 and 2027 alone, the budget for these investments is projected to reach 108 million and 156 million EUR, respectively. Nevertheless, according to KEK, despite stable financial performance and projected revenues of approximately 240 million EUR for 2026, implementing capital investments remains challenging.¹¹⁴ On the other hand, the energy efficiency sector requires average annual investments exceeding 30 million EUR to achieve its long-term objectives.¹¹⁵ Under the EU measures against Kosovo, energy was the second most affected sector, with 114.4 million EUR in suspended funding.¹¹⁶ Among the projects suspended under IPA II funding alone was a key energy-sector project involving the construction of a district heating system (25 million EUR).¹¹⁷ These developments have directly affected the pace of project implementation, causing delays in financing and implementing the planned energy efficiency measures. The combination of these challenges, together with limited capacity and mechanisms for the timely management of funds, is likely to cause further delays in achieving the strategic objectives.

Alongside the measures and objectives established in the Energy Strategy 2022-2031, commitments to develop a gas-fired power plant namely initiatives related to coal gasification as an alternative to coal have also been presented in public discourse. Such an investment is not envisaged in the Strategy, creating an inconsistency between the strategic document and new political commitments or plans. In this context, civil-society organizations have consistently emphasized the need to avoid new investment in fossil-fuel capacity, arguing that it risks slowing the transition towards renewable energy sources and the achievement of decarbonization objectives.

¹¹⁴ Kosovo Energy Corporation (KEK). *Budget Plan for 2026*. 2025

¹¹⁵ GAP Institute. *Governments' Support to Improving Energy Efficiency as a Response to Mitigating (Future) Energy Shocks: Western Balkans 6*. 2024

¹¹⁶ GAP Institute. *The Financial Impact of the European Union Measures on Kosovo*. 2025

¹¹⁷ Ibid.

Conclusion and recommendations

The Energy Strategy of the Republic of Kosovo 2022-2031 aims to transform the energy sector towards a more sustainable, secure and cleaner system, in accordance with Kosovo's obligations to the Energy Community and its orientation towards EU policies. The assessment of the short-term targets shows notable improvements in the reliability and quality of supply as a result of network modernization and better management. However, significant delays remain in refurbishing generation capacity, which may affect security of supply and compliance with environmental standards. Progress on decarbonization and the development of renewable energy sources has been slower, although positive steps have been made in expanding self-generation and encouraging new projects. Several steps have also been taken to improve market functioning and regional cooperation, but structural challenges remain regarding preparation for CBAM and the absence of a domestic carbon-pricing mechanism.

The findings of this Report also show that challenges in the energy sector are related not only to implementing the envisaged measures but, in certain cases, also to the design and assumptions on which the Energy Strategy 2022-2031 was built. In this regard, in addition to accelerating the implementation of projects and specific reforms, a partial review of the document may also be necessary to align it with current energy-market developments and the country's actual capacities.

A regional comparison has been included in the Report for several objectives as it is important to understand the differences and similarities in how Western Balkans countries address energy and climate policies. Among the countries of the region, Serbia demonstrates the highest level of integration of the industrial sector into its energy strategy, since industry is addressed directly as a key consumer and as part of energy efficiency and decarbonization policies.¹¹⁸ By contrast, Albania's energy strategies remain more focused on the energy-supply sector, while transport and industry are addressed in separate sectoral documents.¹¹⁹ A similar situation is observed in North Macedonia, where the energy strategy does not fully integrate these sectors, although a higher level of coordination is achieved through National Energy and Climate Plans (NECPs), which include direct measures for industry and transport.¹²⁰ A similar approach is also observed in Montenegro.¹²¹ This shows that the differences among these countries lie not only in the content of their energy strategies but also in the degree of institutional and cross-sectoral integration of energy and climate policies.

Based on the findings presented above, this Report provides several specific recommendations:

- To further strengthen system reliability, Kosovo should prioritize the timely rehabilitation and modernization of existing generation capacity, particularly at TPP Kosova A and TPP Kosova B, in line with the timelines established in the Strategy. Contractual obstacles involving economic operators should be addressed, and project supervision should be strengthened. At the same time, investment in network automation, modern technologies and preventive

¹¹⁸ Ministry of Mining and Energy. Energy Sector Development Strategy of the Republic of Serbia up to 2040 with Projections up to 2050.

¹¹⁹ USAID. Energy Strategy for Albania. Enhancing Capacity for Low Emission Development Strategies (EC-LEDs). 2018

¹²⁰ Odysee-Mure. North Macedonia Profile.

¹²¹ UN Environment Programme. Energy Development Strategy of Montenegro until 2030. 2014

maintenance should continue in order to preserve improvements in the SAIDI and SAIFI indicators.

- To expand RES capacity and move closer to the long-term objective of increasing the share of RES to at least 35% of total electricity consumption by 2031, a one-stop-shop mechanism should be established. Where such mechanisms already exist, they should be made fully operational for permits and documentation in order to avoid procedural and bureaucratic delays. For auctions, requirements should not be changed during the procedure, and methodologies should be aligned with those used in countries in the region so that conditions are more favourable for investors.
- The identification of priority investment zones should be based on a detailed analysis of the country's economic, energy and infrastructure potential, considering current and future energy demand, network capacity and opportunities to integrate renewable energy sources. These zones should be defined strategically and should include regions with high solar-energy potential, as well as areas where investment in networks and infrastructure could deliver greater economic and social benefits. Such an approach would enable more effective targeting of public and private investment and accelerate the energy transition.
- To align with EU climate policies and mitigate the effects of CBAM, Kosovo should gradually introduce carbon pricing by designing a dedicated scheme, designating the responsible institution and establishing a reliable system for collecting and reporting emissions data. In parallel, a dedicated CBAM plan should be developed to identify the affected sectors, report emissions and support exporting businesses in adapting to EU requirements. A dedicated energy-transition fund should also be established using revenues collected from the domestic carbon tax to finance renewable energy, energy efficiency, network modernization and workforce training. At the same time, Kosovo should align with the EU market regarding the use of Guarantees of Origin.
- To improve consumer protection and empowerment, the Government of the Republic of Kosovo should establish an energy-poverty programme that targets support schemes for vulnerable households more accurately and ensures long-term sustainability and greater impact. This requires stronger identification of vulnerable groups and assistance tailored to the level of energy poverty. Access to energy-efficiency programmes should also be expanded, including building insulation, the modernization of heating systems and the use of renewable energy sources in households, combined with direct financial support for the most vulnerable families. This includes increasing financing through the Kosovo Energy Efficiency Fund and, consequently, expanding support for the residential sector as the country's largest energy-consuming sector. Awareness-raising campaigns should also continue to encourage energy savings and increase public awareness.

Annex

Table 1. Progress in achieving the key objectives of the Energy Strategy 2022-2031

Strategic and specific objectives	Baseline value 2021	Target for 2024/2025	Latest measurements 2024/2025	Target for the final year 2031
Objective 1				
System Average Interruption Duration Index (SAIDI)	80.83 hours/year	68.9 hours/year	39.45 hours/year	51.84 hours/year
System Average Interruption Frequency Index (SAIFI)	58.27	49 (2024)	36.53	40.86
Distribution losses	18.48%, of which 15.1% permitted and 3.38% non-permitted	14.50%	13.7%	9%
Number of refurbished lignite units	0	TPP Kosova A (2024)	0	3 or 4 refurbished units
	0	TPP Kosova B1 (2025)	0	
	0	TPP Kosova B2 (2025)	0	
Objective 2				
Reduction of GHG emissions in the electricity sector compared to 2019	0% [2019]	0% (2024)	6,366 ktCO ₂ +0.8%	-32%
Renewable share in electricity sector consumption (RES-E)	6.30%	Min. 13% (2024)	8% (2025)	Min. 35%
Total RES capacity (including prosumers)	279 MW	490 MW (2025)	330 MW	1,600 MW
Capacity of prosumers	2 MW	30 MW (2025)	34.091 MW	Min. 100 MW
Installed RES capacity in district heating systems	15 MWth	Min. 65 MWth (2025)	15 MWth and 1.2 electric	To be defined by the feasibility study
Objective 3				
The level of final energy consumption	1,516 ktoe (2017)	1,709 ktoe (2024)	1,472.72 ktoe (2024)	1,877 ktoe
Total cumulative energy savings in public buildings	2.6 ktoe	3.3 ktoe (2024)	21.79 ktoe (2025)	33.9 ktoe

Strategic and specific objectives	Baseline value 2021	Target for 2024/2025	Latest measurements 2024/2025	Target for the final year 2031
Total cumulative energy savings in residential and commercial buildings	0.1 ktoe	14.46 ktoe (2024)	14.22 ktoe (2024)	232.5 ktoe
The number of buildings with nearly-zero energy consumption	0	10 (2024)	0	150
Cumulative energy savings achieved in the building sector	2.7 ktoe	17.79 ktoe (2024)	36.01 ktoe	266.4 ktoe
Cogeneration capacity at Termokos (Prishtina)	140 MWth	140 MWth (2024)	140MWth	280 MWth
Number of consumers connected to the district heating systems in Prishtina and Gjakova	17,791	24,560 (2024)	26,636 in total: 25,752 at DH Termokos and 884 at DH Gjakova	38,240 (Prishtina and Gjakova). For other municipalities, it will be decided based on the feasibility study.
Objective 4				
Offered cross-border capacity /Nominal cross-border capacity	Export: 22-24%, Import: 24-26%	Each direction min. 28-30%	Export: 22-24%, Import: 24-26%	Each direction 70%.
Number of new graduates per year receiving an academic degree, or professional qualification in new programs in the field of energy, and related fields	/	To be defined	127 in vocational education (16 girls) KEDS Academy: (215) FME: 14 FECE: 28	To be defined
Percentage of women employed in the energy sector	9%	11%	20%	Min. 25%
Objective 5				
The number of new schemes dedicated to vulnerable consumers	/	2 (2024)	3	4

Strategic and specific objectives	Baseline value 2021	Target for 2024/2025	Latest measurements 2024/2025	Target for the final year 2031
Number of programs supporting energy efficiency and self-consumption community projects	1	>2	1	>5
Price support scheme for vulnerable consumers	Existing support scheme (not properly targeted)	Establishing new program for the vulnerable consumers (2024)	1	Means-tested scheme linked to the reformed social assistance scheme
Implementation of energy awareness-raising and information campaigns	6	9 per year	17 (2024)	9 per year
Dust, NOx and SO ₂ emissions of lignite power plants	TPP "Kosova B": Dust: over 300 mg/ Nm ³ , NOx: over 500 mg/ Nm ³ SO ₂ : over 600 mg/ Nm ³ TPP "Kosova A": Dust: over 50 mg/ Nm ³ , NOx: over 600 mg/ Nm ³ SO ₂ : over 600 mg/ Nm ³	TPP Kosova B1: Dust: over 300 mg/Nm ³ , NOx: over 500 mg/Nm ³ SO ₂ : over 600 mg/Nm ³ . TPP Kosova B2: Dust: 20 mg/ Nm ³ NOx: 200 mg/ Nm ³ SO ₂ : 600 mg/ Nm ³ . TPP Kosova A3: Dust: 20 mg/ Nm ³ NOx: over 200 mg/Nm ³ SO ₂ : 200 mg/ Nm ³ TPP Kosova A4 & A5: Dust: over 50 mg/Nm ³ , NOx: over 600 mg/Nm ³ SO ₂ : 600 mg/ Nm ³	TPP " Kosova A" Unit A3: Dust 58.8 mg/ Nm ³ SO ₂ : 503.75 mg/ Nm ³ NOx: 671.66 mg/ Nm ³ Unit A4: Dust 59.2 mg/ Nm ³ SO ₂ : 548.64 mg/ Nm ³ NOx: 677.33 mg/ Nm ³ Unit A5: Dust 59.4 mg/ Nm ³ SO ₂ : 533.75 mg/ Nm ³ NOx: 687.73 mg/ Nm ³ TPP " Kosova B " Unit B1 : Dust 388 mg/ Nm ³ SO ₂ : 305 mg/ Nm ³ NOx: 565 mg/ Nm ³ Unit B2 : Dust 410 mg/ Nm ³ SO ₂ : 445 mg/ Nm ³ NOx: 593 mg/ Nm ³	TPP Kosova B: Dust: 20 mg/ Nm ³ NOx: 200 mg/Nm ³ SO ₂ : 200 mg/Nm ³ . TPP Kosova A: Dust: 20 mg/ Nm ³ , NOx: 200 mg/Nm ³ SO ₂ : 200 mg/Nm ³

Source: Ministry of Economy, Energy Regulatory Office (ERO)

