Consolidated Report on Enhancing Energy Efficiency in Buildings in Albania and Kosovo

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RenovAID

This project is part of the European Climate Initiative (EUKI) of the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

The project “RenovAID - Multi-level Structural Support for Improving Energy Efficiency in Buildings in Kosovo and Albania” aims to enhance the energy efficiency of buildings in these regions. Energy efficiency is crucial for reducing greenhouse gas emissions, lowering energy costs, and ensuring sustainable development. This report consolidates findings from comprehensive studies conducted in Kosovo and Albania, providing insights into current barriers and proposing actionable recommendations for policy frameworks and practical implementations to improve energy efficiency in buildings.

The report presents an overview of the current status, challenges, and recommendations for improving energy efficiency in buildings in Kosovo and Albania. Key findings reveal significant barriers such as financial constraints, lack of public awareness, and inadequate policy frameworks. The report emphasizes the need for substantial financial support, enhanced public awareness campaigns, and stricter regulatory enforcement to achieve energy efficiency goals. Collaborative efforts between government bodies, private sectors, and international organizations are essential to drive the energy efficiency agenda forward in line with European standards.

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RenovAID

Multi-level structural support for improving energy efficiency in buildings in Kosovo and Albania

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Abbreviations

EUKI - European Climate Initiative

EPC - Energy Performance Certificate

IEA - International Energy Agency

EED - Energy Efficiency Directive

EPBD - Energy Performance of Buildings Directive

EE - Energy Efficiency

RES - Renewable Energy Sources

RE - Renewable Energy

MABs - multi-apartment buildings

HOAs - Homeowner associations

REDII - Renewable Energy Directive

NECP - National Energy and Climate Plan

NEEAP - National Energy Efficiency Action Plan

NREAP - National Renewable Energy Action Plan

NZEB – Nearly Zero Energy Buildings

KEEREP - Kosovo Energy Efficiency and Renewable Energy Project

1. Executive Summary

1.1. OVERVIEW OF THE PROJECT

The RenovAID project is a strategic initiative to increase energy efficiency in the building sectors of Kosovo and Albania, which are in transition towards European Union (EU) energy standards. Funded under the European Climate Initiative (EUKI), the project aims to address the urgent need to reduce greenhouse gas emissions, lower energy consumption and increase energy security in these regions.

Kosovo and Albania face serious challenges in their building sectors, such as outdated infrastructure, high rates of energy poverty and the lack of a comprehensive policy framework. The RenovAID project focuses specifically on these issues, providing multi-level structural support through policy recommendations, capacity-building programmes and awareness-raising campaigns.

Key project activities include:

- Developing long-term renovation plans for Pristina and Tirana, including policy recommendations tailored to the specific challenges facing each city.
- Establishing an Energy Performance Certificate (EPC) framework to improve the regulation and transparency of energy consumption in buildings and establishing one-stop shops to streamline renovation processes for home and business owners.
- Undertaking capacity-building programmes to increase local and national government expertise in energy efficiency policy and implementation.
- Conducting stakeholder consultations to identify barriers in the building sectors of Kosovo and Albania and gather information from key stakeholders such as government institutions, businesses and NGOs.
- Organising workshops and online training modules to improve cross-sectoral cooperation and disseminate practical knowledge on energy-efficient renovations.

The RenovAID project brings together the expertise of both local and international partners to create practical solutions tailored to the specific needs of Albania and Kosovo. By addressing financial, regulatory and technological barriers, the project contributes to the broader goal of reducing energy consumption in buildings and improving living conditions.

1.2. KEY FINDINGS AND RECOMMENDATIONS BASED ON THE RESULTS FROM ALBANIA AND KOSOVO

In Albania, significant progress has been made in promoting energy efficiency in the building sector, notably through the introduction of energy performance certifications for new and renovated buildings. However, several barriers continue to impede widespread adoption of energy-efficient practices. High initial costs for retrofits, coupled with limited financing options, pose a major challenge for property owners. Additionally, Albania's complex regulatory framework lacks clear guidelines and incentives, creating administrative obstacles. The reliance on outdated technologies further complicates the integration of modern energy-efficient systems. Public awareness of energy efficiency remains low, with minimal understanding of its long-term benefits, which slows the adoption of energy-saving measures.

In Kosovo, the building sector has encountered similar challenges. Despite the enactment of key legislation, such as the 2016 Law on Energy Performance of Buildings, delays in enforcement have hindered significant progress. A lack of reliable data on energy consumption limits decision-making and investment prioritization, while Kosovo's regulatory framework remains misaligned with EU standards, such as the Energy Performance of Buildings Directive. Financial barriers also persist, with insufficient fiscal policies to support energy-efficient construction methods. Additionally, low institutional capacity at the local level affects monitoring and enforcement of energy efficiency standards.

To address these challenges, both Albania and Kosovo should prioritize the development of supportive regulatory frameworks that align with EU standards and reduce administrative burdens. Enhanced financing options, such as low-interest loans and subsidies for energy-efficient retrofits, would mitigate financial constraints. Capacity-building programs for construction professionals and local government institutions are essential for improving technical expertise and enforcement capabilities. Public awareness campaigns highlighting the benefits of energy efficiency and available support programs would also encourage broader engagement. By integrating these solutions into their policies, both countries can establish stronger support systems for energy efficiency and align more closely with EU sustainability goals.

2. Introduction

Drive for energy efficiency in buildings is a key element in mitigating climate change, ensuring energy security and promoting sustainable development. The RenovAID project, aimed at increasing the energy efficiency of buildings in Albania and Kosovo, addresses these key objectives. Albania and Kosovo are currently undergoing significant changes to comply with European Union (EU) energy efficiency standards as part of their aspirations to join the EU. Despite progress, both countries still face significant challenges, including outdated infrastructure, limited financial resources and lack of public awareness.

The present report consolidates findings from detailed research conducted on energy efficiency in Albania and Kosovo, with a particular focus on the legal framework, barriers and opportunities. It builds on the analyses presented in earlier reports on the state of the policy framework and stakeholder consultations, which provided a comprehensive overview of the challenges in the building sector. These include financial constraints, technology gaps and the need for stronger public engagement and enforcement.

The main objective of this report is to provide a clear assessment of the current state of energy efficiency in the construction sectors of Albania and Kosovo and to provide actionable recommendations for policy improvement, public awareness and integration of energy efficient technologies. These recommendations are designed to enable these countries to meet EU standards, reduce energy poverty and achieve significant energy savings in the long term.

3. Methodology

3.1. RESEARCH DESIGN AND RATIONALE

This report builds upon the findings and insights gathered from two preceding reports, particularly focusing on the challenges in energy performance and efficiency. The continuity in research allows for a more comprehensive understanding of the key issues and emerging trends in the sector. However, to further validate previous findings and delve deeper into the current contextual situation, this report incorporates additional qualitative data from interviews with both institutional and non-institutional actors. These interviews were designed to explore new dimensions of the challenges identified in earlier reports while also verifying the accuracy of the findings.

3.2 DATA COLLECTION METHODS

Data for this report were collected through a combination of surveys, interviews, and focus groups. The interviews involved key stakeholders from the public and private sectors, including government officials, energy experts, and representatives from non-governmental organizations. Focus groups were conducted with industry professionals to capture a broad spectrum of perspectives on the implementation of energy efficiency policies. These methods provided a useful dataset, ensuring a multi-faceted view of the current state of energy performance in Kosovo and Albania.

3.3 ANALYSIS TECHNIQUES

The data collected from interviews, including semi-structured interviews, and findings from desk research were analysed against the initial assumptions and hypotheses established in the earlier phases of this research. This comparative approach allowed us to validate the findings from previous reports and explore new insights. The analysis process helped in refining the conclusions and forming well-supported recommendations, ensuring that the findings are both contextually relevant and empirically grounded.

4. Current Status of Energy Efficiency in Buildings

4.1. OVERVIEW OF GLOBAL TRENDS IN ENERGY EFFICIENCY

Energy efficiency is a critical component of global strategies to reduce greenhouse gas emissions, lower energy consumption, and improve overall energy security. As buildings account for approximately 30% of global energy consumption and nearly 40% of CO_2 emissions[1], improving energy efficiency in buildings has become a key priority. Countries worldwide are adopting a range of policies, technologies, and best practices aimed at enhancing energy efficiency in both new and existing buildings. As of 2022, over 60 countries have implemented energy efficiency policies in the building sector, reflecting a growing global commitment to reducing energy demand and addressing climate change.

Energy-efficient buildings are increasingly seen as essential to climate resilience, particularly in regions prone to extreme weather conditions such as heat waves or severe cold. For instance, during the 2021 Texas cold snap, energy-efficient homes were better equipped to cope with the sharp increase in energy demand[2], reducing the load on the power grid. Globally, energy-efficient buildings are playing a critical role in stabilizing energy systems during of peak demand.

International initiatives such the International Energy Agency (IEA) are pivotal in promoting energy efficiency. IEA has established an Energy in Buildings and Communities (EBC) to undertake research and provide an international focus for building energy efficiency[3]. EBC offers policy guidelines and frameworks that countries use to meet energy efficiency goals. According to the IEA, energy efficiency improvements have the potential to cut global energy use by over 10% by 2030, provided policies are effectively implemented[4].

European Union

The European Union has been a global leader in promoting energy efficiency through a robust regulatory framework. The EU's Energy Efficiency Directive

1 Min, J., Yan, G., Abed, A.M., Elattar, S., Amine Khadimallah, M., Jan, A. and Elhosiny Ali, H. (2022). The effect of carbon dioxide emissions on the building energy efficiency. Fuel, [online] 326, p.124842. doi: https://doi.org/10.1016/j.fuel.2022.124842

2 Sodoma, B. (2022). 2021 Texas cold snap urges for energy-efficiency windows in homes. [online] Austin American-Statesman. Available at: https://eu.statesman.com/story/sponsor-story/maverick-windows/2022/02/17/2021-texas-cold-snap-urges-energy-efficiency-windows-homes/6814648001/ [Accessed 13 Sep. 2024].

3 Iea-ebc.org. (2021). About || IEA EBC. [online] Available at: https://www.iea-ebc.org/ebc/about [Accessed 13 Sep. 2024].

4 iea.org. (2023). What does doubling global progress on energy efficiency entail? – Energy Efficiency 2023 – Analysis - IEA. [online] IEA. Available at: https://www.iea.org/reports/energy-efficiency-2023/what-does-doubling-global-progress-on-energy-efficiency-entail [Accessed 13 Sep. 2024].

– EED (EU/2023/1791) and the Energy Performance of Buildings Directive – EPBD (EU/2024/1275) require member states to develop national energy efficiency plans and implement building renovation strategies. These efforts are part of the broader EU Green Deal, which aims to achieve climate neutrality by 2050. Notably, the EU's Renovation Wave strategy[5], launched in 2020, aims to double the annual renovation rate of buildings by 2030, targeting a 60% reduction in building sector emissions by 2050[6].

One standout initiative is the introduction of Energy Performance Certificates (EPCs) across the EU, which provide transparency regarding a building's energy efficiency. By 2030, 35 mln buildings could be renovated and up to 160k additional green jobs created in the construction sector[7], with significant financial support through mechanisms like the Just Transition Fund, which allocated €17.5 bln to support energy-efficient upgrades in vulnerable regions[8].

United States

The United States is a global leader in energy efficiency, with a focus on market-based mechanisms and state-level initiatives. Programmes like Energy Star and LEED certification have driven energy-efficient practices in both the residential and commercial sectors. Energy Star, for instance, has saved American businesses and consumers more than $500 billion in energy costs since its inception in 1992[9]. Recently, the Inflation Reduction Act (IRA) of 2022 allocated over $50 billion toward energy-efficient building retrofits, including tax incentives for homeowners and businesses to upgrade heating, ventilation, and air conditioning (HVAC) systems and improve insulation[10]. Notably, federal initiatives such as the Weatherization Assistance Program (WAP) have reduced energy costs by an average of $283 per year for low-income households[11].

China

China, the world's largest energy consumer, has made significant strides in improving the energy efficiency of its building sector. The government's 14th Five-Year Plan (2021-2025) includes ambitious goals to reduce energy intensity by 13.5% and increase the share of green buildings[12]. Under the Green Building

5 A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives

6 Europa.eu. (2020). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0662

7 Europa.eu. (2020). INTERNAL MARKET, INDUSTRY, ENTREPRENEURSHIP AND SMES - Renovation Wave: doubling the renovation rate to cut emissions, boost recovery and reduce energy poverty. [online] Available at: https://ec.europa.eu/newsroom/growth/items/690437/en [Accessed 13 Sep. 2024].

8 Widuto, A. and Jourde, P. (2020). [online] pp.2021–2027. Available at: https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646180/EPRS_BRI(2020)646180_EN.pdf

9 www.energystar.gov. (n.d.). ENERGY STAR Impacts. [online] Available at: https://www.energystar.gov/about/impacts

10 Mills, R. (2022). The Inflation Reduction Act Could Transform the US Buildings Sector. [online] RMI. Available at: https://rmi.org/the-inflation-reduction-act-could-transform-the-us-buildings-sector/

11 Energy.gov. (2021). DOE Announces $18.6 Million to Expand the Weatherization Assistance Program . [online] Available at: https://www.energy.gov/articles/doe-announces-186-million-expand-weatherization-assistance--program [Accessed 13 Sep. 2024].

12 english.www.gov.cn. (n.d.). 5-year plan spotlights green development. [online] Available at: https://english.www.gov.cn/policies/latestreleases/202201/24/content_WS61ee88b6c6d09c94e48a4301.html

Action Plan, all new buildings in urban areas are required to meet energy efficiency standards[13].

China is also investing heavily in retrofitting its vast stock of inefficient buildings. In January 2021, Shenzhen established a special fund for green and innovative development in engineering and construction, which supports, among other things, green renovations and energy-saving renovations of existing buildings. In 2024, Shenzhen announced that it plans to spend ¥4.16 million on energy-saving renovations of existing buildings over the next two years.[14]

Furthermore, in June 2023, Beijing established an incentive fund for green building development. The incentive fund provides financial incentives for energy renovation of public buildings and other existing buildings. For public buildings, the minimum energy saving rate for renovation must be 15% for ordinary public buildings and 20% for large public buildings.[15]

China is at the forefront of smart city development, integrating smart grids, energy-efficient technologies, and renewable energy sources into urban infrastructure. Cities like Shenzhen and Hangzhou are pioneers in implementing smart grids that optimize energy consumption and reduce reliance on fossil fuels. The Chinese government has also made significant investments in renewable energy integration, particularly in urban areas, which has enabled some urban areas to reduce their carbon emissions by as much as 30%[16].

Overall, global efforts to improve building energy efficiency are accelerating. These efforts are supported by regulatory frameworks, technological advancements, and financial incentives, all of which contribute to reducing energy demand, lowering emissions, and improving climate resilience.

13 CHINA GREEN BUILDING MARKET SNAPSHOT 2020. (n.d.). Available at: https://edgebuildings.com/wp-content/uploads/2023/11/IFC0077-2023-China-Green-Building-Market-Maturity-Sheet.pdf

14 Bakermckenzie.com. (2024). Incentives for Green Retrofit | China | Global Sustainable Buildings Guide | Baker McKenzie Resource Hub. [online] Available at: https://resourcehub.bakermckenzie.com/bg-bg/resources/global-sustainable-buildings/asia-pacific/china/topics/incentives-for-green-retrofit

15 Bakermckenzie.com. (2024). Incentives for Green Retrofit | China | Global Sustainable Buildings Guide | Baker McKenzie Resource Hub. [online] Available at: https://resourcehub.bakermckenzie.com/bg-bg/resources/global-sustainable-buildings/asia-pacific/china/topics/incentives-for-green-retrofit

16 RENEWABLE ENERGY POLICIES FOR CITIES EXPERIENCES IN CHINA CHONGLI DISTRICT TONGLI TOWN. (n.d.). Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/May/IRENA_Policies_for_Cities_China_2021.pdf?la=en&hash=65CB5B4FB3C3D1D430A901DB1BE4DCCCBFC1CE37

4.2 SPECIFIC CHALLENGES AND OPPORTUNITIES IN THE WESTERN BALKANS

Challenges

The residential building sector in the Western Balkans (WB) is a major energy consumer, accounting for 30% to 60% of total national energy consumption, compared to about 40% in the EU. Despite lower per-capita energy use, energy consumption per square meter varies significantly across the region — from approximately 100 kWh/m² in Montenegro to over 200 kWh/m² in Bosnia and Herzegovina. This high energy demand and low energy performance are driven by several factors including aging infrastructure, inadequate maintenance, regulatory and legal barriers, and poor management practices.

Key Challenges

- Financing Barriers for Energy Efficiency (EE)

  Fragmented Market: While individual and business sectors have relatively accessible funding options for EE improvements, multi-apartment buildings (MABs) struggle to attract commercial loans. The market for financing MABs is underdeveloped due to various barriers.

- Investment Challenges

  Small Project Sizes and High Transaction Costs: EE projects in MABs are often small-scale, making them less attractive to investors due to high transaction costs.

  Low Energy Tariffs: Existing low tariffs diminish the financial incentives for investing in EE.

  Affordability Issues: Many homeowners and tenants have limited financial resources, complicating investment in EE.

  Weak HOA Decision-Making: Homeowner associations (HOAs) often lack the capacity to make effective decisions regarding EE investments.

  Creditworthiness Concerns: HOAs and homeowners often face challenges with creditworthiness, affecting their ability to secure financing.

  Norm-Based Billing Systems: Billing systems that do not reflect actual energy use can undermine the motivation for energy efficiency improvements.

  Informal Construction Practices: Unregistered additions and informal construction further complicate EE upgrades.

  Short Investment Horizons: Homeowners often seek quick returns on investments, which may not align with the longer payback periods typical of EE measures.

- Regulatory and Policy Gaps

  Ineffective Oversight: Current policies and regulations related to housing often lack clarity and are poorly enforced, rendering them ineffective.

Inconsistencies and Loopholes: Discrepancies between housing laws and other relevant regulations create a fragmented regulatory framework.

Opportunities for Improvement

- Decarbonisation Pressures

  International and Domestic Commitments: The WB faces increasing pressure from international stakeholders, including civil society, environmental organizations, and international financing institutions, to decarbonize its energy supply and consumption. Key actions include phasing out coal, adopting cleaner energy sources, and enhancing energy efficiency, particularly in buildings.

- Benefits of Energy Efficiency

  Reduction in Energy Poverty: Improving building efficiency can lower energy bills, reducing energy poverty.

  Economic and Environmental Gains: Enhanced EE can stimulate economic growth through job creation in construction and building materials, improve air quality, and reduce harmful emissions.

  Mitigation of Tariff Reforms: EE improvements can help offset the impact of rising energy tariffs by reducing overall energy consumption, thus minimizing household energy bills while maintaining or increasing comfort levels.

- Future Legal Obligations

  EU and Energy Community Targets: The Energy Community's Clean Energy for All Europeans Package includes ambitious 2030 targets for energy efficiency and renewable energy. This will introduce stricter building standards, enhanced use of renewable energy in heating and cooling, and improved efficiency in centralized and district heating systems. Compliance will require significant renovation investments.

  Energy Efficiency Directive (EED): The amended EED sets an 11.7% reduction in energy consumption by 2030, compared to the 2020 Reference Scenario projections, which will influence building renovation targets.

  Energy Performance of Buildings Directive (EPBD): The EPBD mandates the development of a national Long Term Renovation Strategy and Roadmap, as well as promotion of financial mechanisms such as energy-efficient mortgages and public-private partnerships.

  Renewable Energy Directive (REDII): REDII aims to integrate renewable energy into heating and cooling systems, further driving the need for deep renovations that incorporate renewable technologies.

- Political Momentum

  Sofia Declaration: At the 2020 Sofia Summit, WB leaders endorsed the Green Agenda for the Western Balkans, committing to support building renovation schemes, secure financing, and enforce energy performance regulations. They also pledged to develop programs addressing energy poverty and financing schemes for household renovations.

5. Policy Frameworks in Albania and Kosovo

5.1. OVERVIEW OF EXISTING POLICIES AND THEIR ALIGNMENT WITH EU STANDARDS

Albania

- National Energy and Climate Plan (NECP) 2022-2030

The Government of Albania adopted its first National Energy and Climate Plan (NECP) on December 29, 2021. This plan integrates policies and measures to meet climate objectives, aligning with the National Energy Strategy and the Nationally Determined Contributions (NDCs) set during COP21. The NECP aims to harmonize Albania's energy and climate policies to achieve its climate goals.
Following its submission, the Secretariat provided 50 recommendations to refine the NECP. Based on these recommendations, the NECP outlines strategies to reduce final energy consumption by 9.4%, with implementation slated to begin in 2024.

- National Energy Efficiency Action Plan (NEEAP)

The NEEAP, which is a core component of the NECP, has undergone revisions to incorporate recommendations from the Energy Community. The NEEAP targets a 9.4% reduction in final energy consumption in 2030 starting from 2024.
Albania has approved the 1st, 2nd, and 3rd NEEAPs, each defining energy efficiency targets across various sectors including residential, services, industry, and transport, with estimates for agricultural energy savings. The initial NEEAP measures were largely supported by international financing institutions, donors, and local commercial bank loans. Moving forward, scaling up energy efficiency actions will require increased domestic funding, both public and private. To support this, the EE law calls for the establishment of an Energy Efficiency Fund to facilitate the financing of EE projects.

- National Renewable Energy Action Plan (NREAP)

The NREAP outlines Albania's renewable energy targets for the electricity, transport, and heating sectors. It is aligned with Albania's obligations under the Energy Community Treaty to meet EU directives on renewable energy sources. The plan mandates an increase in the share of renewable energy from 38% of total final energy consumption in 2020 to 42.5% by 2030. Albania has approved the 1st and 2nd NREAPs, which set specific targets for renewable energy integration.

- Legislative Framework

  - **Law on Energy Efficiency:** (No. 124/2015, 12.11.2015, amended by Law No. 28/2021, 08.03.2021). This law, initially adopted on November 12, 2015, and later amended on March 8, 2021, aligns partially with the EU Directive 2012/27/EU on energy efficiency. It incorporates provisions from earlier

directives (2009/125/EC, 2010/30/EU) and repeals outdated ones (2004/8/EC, 2006/32/EC). The law is designed to enhance energy efficiency across Albania by setting out various requirements and measures.

- **Law on Energy Performance of Buildings** (2016): Albania adopted this law (Law No. 116/2016) to align with the EU Directive on Energy Performance of Buildings (EPBD), mandating that new public buildings meet the Nearly Zero Energy Buildings (NZEB) standard.
- **Law on Labelling of Energy-Related Products** (2012): Enacted on June 21, 2012 (Law No. 68/2012), this law implements EU Directive 2010/30/EU, requiring that consumers be informed about the energy consumption of energy-related products.
- **Renewable Energy Sources Law** (2023): The newly adopted Law on Renewable Energy Sources, aligned with EU Directive 2018/2001, introduces significant innovations, including the rights of renewable energy communities to produce, consume, and sell renewable energy. It replaces feed-in tariffs with competitive support mechanisms. The law on bioenergy is still pending.

◆ Secondary Legislation on Energy Efficiency

- **DCM no.852, date 7.12.2016** 'On establishment and manner of organization and functioning of the Agency for Energy Efficiency'.
- **DCM no.407, date 19.06.2019** 'On approval of procedures, categories, conditions, and requirements of qualifications and professional experience for energy which defines the procedures, categories and requirements for issuance of the energy auditing certificates'.
- **DCM no.342, date 22.05.2019** 'On approval of procedures, categories, conditions and requirements of qualifications for energy auditors.
- **DCM .256, date 27.03.2020** 'On calculation methodology of optimum cost levels for the minimum energy performance of buildings, and building units and elements'.
- **DCM no.537, date 8.07.2020** 'On minimum requirements of energy performance and elements of buildings'.
- **DCM no.934, date 25.11.2020** 'On establishing the criteria and procedures for the selection manner of energy performance certificates of buildings which shall be subject of evaluation and their monitoring process'.
- **DCM no.1094, date 24.12.2020** 'On approving the national methodology of calculation of energy performance of buildings'.

These legislative measures and plans reflect Albania's commitment to improving energy efficiency, increasing the share of renewable energy, and aligning with EU standards and directives.

Kosovo

Kosovo's energy policy framework has evolved significantly in recent years, particularly with the adoption of the Kosovo Energy Strategy 2022–2031. This strategic document outlines five key objectives that aim to modernize the energy sector and align it more closely with EU standards.

- **Objective 1:** Improving the reliability of the system

  This objective focuses on enhancing the overall stability and dependability of Kosovo's energy system, ensuring consistent energy supply while addressing technical challenges related to infrastructure.

- **Objective 2:** Decarbonization and promotion of renewable energy

  In line with EU energy policies, Kosovo aims to reduce its carbon emissions by increasing the share of renewable energy in its energy mix. This objective includes significant efforts to promote solar, wind, and hydropower as part of the country's decarbonization agenda.

- **Objective 3:** Increasing Energy Efficiency (EE)

  Kosovo places a strong emphasis on improving energy efficiency across all sectors. This aligns with EU directives on energy efficiency, particularly in the building and industrial sectors, where there is significant potential for reducing energy consumption and meeting energy-saving targets.

- **Objective 4:** Strengthening regional cooperation and market functioning

  Kosovo seeks to foster regional collaboration, which is essential for improving energy security and market integration. This is consistent with the EU's Energy Union strategy, which promotes the integration of energy markets across member states and neighbouring countries.

- **Objective 5:** Protecting and empowering consumers

  The strategy includes provisions to safeguard consumers, particularly vulnerable groups, and to empower them through information and access to affordable, reliable energy sources. This is closely aligned with EU consumer protection regulations in the energy sector.

Despite these comprehensive objectives, challenges remain in fully aligning with EU standards, particularly in the area of renewable energy and energy efficiency.

The National Energy and Climate Plan (NECP) is another critical policy document aimed at further aligning Kosovo's energy policies with EU standards. However, the NECP remains in draft form, and there have been notable delays in its full adoption and approval by the Energy Secretariat. This delay has hindered the country's ability to fully integrate into the broader EU framework for energy and climate governance. The NECP, once finalized, is expected to outline Kosovo's commitments to the EU's 2030 climate and energy targets, including the reduction of greenhouse gas emissions, increasing the share of renewable energy, and improving energy efficiency.

The energy performance and efficiency framework in Kosovo is anchored in several key legal acts that align with the country's strategic objectives and, to a certain extent, with EU directives. Below are the main legal instruments that form the basis for energy performance policies in Kosovo:

Primary Legislation:

- **Law No. 06/L-079 on Energy Efficiency (2018)**

  This law provides the legal foundation for promoting energy efficiency in all sectors, particularly in buildings, and sets national energy savings targets. It also outlines the establishment of institutional structures responsible for overseeing the implementation of energy efficiency measures, including the Kosovo Energy Efficiency Fund. The law aligns Kosovo with EU energy efficiency directives but has faced implementation challenges, especially in key areas such as mandatory energy savings obligations and the promotion of high-efficiency cogeneration.

- **Law No. 05/L-101 on Energy Performance of Buildings (2016, 2024)**

  This law is specifically aimed at improving the energy performance of buildings. It sets requirements for the construction, maintenance, and renovation of buildings to ensure they meet minimum energy performance standards. The law also introduces energy certification for buildings, which has recently begun to be implemented. While the law represents progress towards meeting EU standards, delays in implementation have hindered its full effect.

Secondary Legislation:

In addition to these laws, Kosovo has adopted several administrative instructions that provide detailed guidelines for implementing energy efficiency measures. These include:

- Administrative Instruction (MEA) No. 05/2021 on the General Reporting Framework for Energy Efficiency - This instruction establishes the general framework for reporting energy efficiency improvements across sectors, detailing the roles of various stakeholders and the reporting processes required for compliance with the national energy efficiency targets.
- Administrative Instruction (MEA) No. 10/2020 on Methods and Common Principles for Calculating the Impact of Energy Efficiency - this instruction provides the methodology for calculating the energy savings achieved through various efficiency measures. It ensures that energy savings calculations are standardized and in line with EU practices, facilitating accurate measurement and reporting.
- Administrative Instruction (MEA) No. 08/2020 on Certificates/Guarantees of Origin for Electricity Produced from High-Efficiency Cogeneration - this instruction introduces the certification process for energy produced from high-efficiency cogeneration. It ensures that consumers and stakeholders can identify and verify the origin of electricity produced from efficient energy sources, supporting transparency and compliance with EU standards.

- Administrative Instruction (MEA) No. 07/2020 on General Conditions for Cost-Benefit Analysis Regarding Measures for Promoting Energy Efficiency in Heating and Cooling - This administrative instruction outlines the criteria for conducting cost-benefit analyses when implementing energy efficiency measures in heating and cooling systems. The aim is to ensure that these measures are financially viable and contribute to energy savings.
- Administrative Instruction (MEA) No. 04/2020 on the Potential for Energy Efficiency in Heating and Cooling - This instruction assesses the potential for improving energy efficiency in the heating and cooling sectors, providing guidelines for maximizing energy savings in these critical areas. It is designed to help meet national energy efficiency goals while aligning with EU energy efficiency directives.
- Administrative Instruction (MEA) No. 03/2020 on Energy Efficiency Requirements for the Purchase of Products, Services, and Buildings by Central Level Institutions - This instruction mandates that central institutions in Kosovo incorporate energy efficiency criteria when purchasing products, services, and buildings. This aligns with the EU's public procurement directives and aims to set an example for the private sector by prioritizing energy-efficient solutions in public procurement.

5.2 ANALYSIS OF LEGISLATIVE ENVIRONMENTS

Albania

Several key acts and regulations are currently being drafted or updated to implement the provisions of the Law on Energy Efficiency. EED is partially transposed in Albanian law. The full transposition is expected by the end of 2024. The strategy for the renovation of the building stock according to article 2a Directive 20210/31/EU is not yet available. However, the work on the Long-term renovation strategy has been started as part of the SLED project and AEE is currently working with the European Bank for Reconstruction and Development (EBRD) regarding this document.

The by-laws for the Energy Performance of Buildings have been approved, including the methodology for calculating and determining minimum energy performance requirements and building certification. Changes in the law on energy efficiency have driven the development of the ESCO market, with a strong facilitating role from the Energy Efficiency Agency. However, Albania is currently focused on the timely implementation of the National Energy Plan and Climate (NECP), which is important for projects and implementing efficient energy measures to achieve energy efficiency objectives by 2030.

Albania has taken steps toward energy efficiency and climate action by **setting its 2030 energy efficiency targets and implementing associated policies and**

measures as outlined in the NECP adopted in February 2022.[17] However, these measures are not in line with the 2030 targets set by the Energy Community. The Ministry of Infrastructure and Energy has introduced new by-laws to enforce the Energy Efficiency Law, which covers aspects such as local energy efficiency action plans and building requirements. Further by-laws addressing important areas like monitoring and verification, energy efficiency obligations, and public procurement criteria are being drafted, and their adoption is pending. To promote energy demand reduction within public institutions, the government has imposed mandatory measures requiring a 15% reduction in electricity consumption. Nominated energy managers are responsible for monitoring progress and reporting, and penalties have been established for non-compliance.

A long-term building renovation strategy has not yet been adopted. Following adopting relevant by-laws to implement the 2016 Law on Energy Performance of Buildings, Albania has **established an operational energy performance certification system**. The Energy Efficiency Agency supports issuing energy performance certificates for buildings and oversees the scheme. More than 40,000 audit reports have been issued since its inception.

In terms of **funding mechanisms for energy efficiency**, no dedicated fund has been established. Investments in energy efficiency are currently being channeled through the state budget and foreign financial aid, with a particular focus on the buildings sector. Furthermore, local banks are actively involved in promoting energy efficiency by offering credit lines for various measures, with a primary focus on enhancing the thermal insulation of building envelopes in private buildings. These initiatives are subsidized with up to 50% of the costs being financed by the Municipality of Tirana. The development of the energy service (ESCO) market model is ongoing. The relevant regulations and model contracts for energy performance contracting have not been adopted.

The amendments to Law No. 62/2012 are essential to align the national framework with the latest **Energy Community requirements on energy labelling**. The adoption of these amendments is still pending. There has been little advancement in updating the existing or adopting new implementing regulations for specific product groups, as mandated by the Ministerial Council Decisions from September 2014, November 2018, and lastly, December 2022. This remains an area of concern.

While the Energy Efficiency Law introduced the legal basis for developing a comprehensive assessment of the potential for **efficient heating and cooling** in 2021, the conduct of assessments in line with the requirements of Article 14 of the Energy Efficiency Directive is missing. Moreover, the transposition of provisions related to the inspection of heating and air-conditioning systems is pending. Recently, Albania subsidized 2,000 families with solar water heating systems.
Albania is making strides in energy efficiency and building renovation, but several challenges remain. Effective implementation of the NECP, development of a long-term renovation strategy, and alignment with Energy Community targets are essential for achieving significant improvements in energy efficiency. Enhanced

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funding mechanisms, regulatory updates, and broader adoption of energy-efficient practices are crucial for advancing Albania's sustainability goals and reducing energy consumption across the country.

Kosovo

Kosovo's legislative environment for energy efficiency in buildings has made important strides, but significant gaps remain in fully aligning with EU standards and directives. The country's efforts to enhance the energy performance of buildings are laid out in key laws such as the **Law on Energy Efficiency** and the **Law on Energy Performance of Buildings**. However, challenges in implementation and alignment with new EU directives pose substantial barriers to realizing the full potential of these policies.

One of the major concerns highlighted by the **Kosovo Energy Strategy 2022–2031** is the need to increase energy efficiency across all sectors, with buildings playing a central role. Despite this priority, Kosovo has yet to fully implement the **energy performance certification of buildings**, a critical requirement under EU directives. The lack of a comprehensive and enforced certification system hinders the country's ability to track and improve the energy efficiency of both new and existing buildings. Without these certifications, it remains difficult to incentivize energy-saving measures or assess the actual performance of the building stock.

Kosovo's legislative framework, while partially aligned with EU standards, requires further development to meet the demands of the **Energy Efficiency Directive** and the **Energy Performance of Buildings Directive**. The European Commission's 2023 Report emphasizes that Kosovo's laws still need to be updated to reflect the latest EU requirements. This includes adopting the **Building Renovation Strategy** and the **Plan for Nearly Zero Energy Buildings (nZEB)**, both of which are essential for ensuring that new construction and renovations achieve the highest levels of energy efficiency.

Although Kosovo has made progress with the establishment of the **Energy Efficiency Fund**, which supports the subsidization of energy-saving measures in the residential sector, the financial and institutional capacity to fully implement energy efficiency measures remains limited. The fund provides a framework for subsidizing improvements in social housing, but the broader residential sector still faces significant financial barriers to energy-efficient renovations. Moreover, the operationalization of revolving financial models is under development but will require more robust mechanisms to ensure long-term sustainability in financing energy efficiency projects.

In terms of compliance with EU standards, Kosovo's **National Energy and Climate Plan (NECP)**, currently in draft form, is expected to address the legal framework for energy efficiency in buildings. However, delays in the adoption of the NECP and its approval by the **Energy Community Secretaria**t have slowed Kosovo's progress in aligning its energy efficiency policies with the EU. This delay, coupled with challenges in simplifying permitting procedures for energy-efficient

renovations and new constructions, continues to hinder the faster deployment of energy efficiency improvements in the building sector.

Another critical area for alignment is the need for **secondary legislation** that specifies detailed guidelines for the implementation of energy efficiency measures. While Kosovo has adopted some **Administrative Instructions**—such as those governing the reporting framework for energy efficiency and the calculation of energy savings impacts—other key provisions, such as the **Certification of Origins for Electricity Produced from High-Efficiency Cogeneration** and **Cost-Benefit Analysis for Energy Efficiency Measures**, need more robust enforcement and alignment with EU principles.

In conclusion, Kosovo's legislative environment for energy efficiency in buildings is on a trajectory toward EU alignment, but significant challenges remain. Full compliance with the **Energy Efficiency Directive** and the **Energy Performance of Buildings Directive** requires enhanced institutional capacity, financial mechanisms, and streamlined regulatory processes. Accelerating the adoption and enforcement of both primary and secondary legislation will be critical for Kosovo to achieve its energy efficiency goals and meet the expectations of the Energy Community and the **EU**.

6. Findings and Analysis

6.1. KEY ISSUES AND BARRIERS IN ALBANIA

The building sector has made huge progress regarding the energy efficiency. The energy performance certification process has been issued since February 2021. All the new buildings or existing buildings which undergo on a major renovation must fulfil the minimum energy performance requirements.

In the buildings sector in Albania, several barriers significantly hinder the adoption of energy-efficient practices. Financial constraints are among the most prominent challenges, as the initial costs associated with retrofitting buildings are prohibitively high. Many property owners struggle to afford the necessary materials, technologies, and labour, and the lack of accessible financing options for energy-efficient renovations exacerbates this issue. Additionally, the regulatory framework in Albania is complex and insufficient to support large-scale energy efficiency improvements, with existing regulatory frameworks failing to provide clear guidelines, incentives, or enforcement mechanisms to drive compliance and adoption of energy-efficient practices. This creates a discouraging environment for stakeholders, who find the bureaucratic hurdles and lack of regulatory clarity daunting.

Another significant barrier is the reliance on outdated and inefficient technologies within many buildings. The lack of access to modern energy-efficient technologies, coupled with a lack of expertise in implementing and maintaining them, poses a considerable challenge. Furthermore, the design and structure of older buildings often complicates the integration of new technologies, requiring substantial modifications. The existing infrastructure, including power grids and heating systems, is frequently incompatible with energy-efficient upgrades, requiring comprehensive overhauls.

Social factors also play a role in hindering progress. Public awareness and engagement in energy efficiency initiatives are low, with many individuals and communities lacking an understanding of the long-term benefits. This results in minimal prioritization of energy-efficient practices, compounded by cultural resistance to change and a preference for traditional building methods.

In the table below are clustered the main barriers encountered and corresponding action areas.

Key Issues	Barriers	Priority action areas
Legislative and regulatory barriers	Lack of enabling legislative framework and administrative procedures, overlapping law and regulations.	**Close regulation gaps and develop an enabling framework**
	A discouraging environment for stakeholders, who find the bureaucratic hurdles and lack of regulatory clarity daunting.	
	The legal registration and liabilities related to common property (staircases, basements, roofs, etc.).	
	the “repair and maintenance fund” of the building is not able to support significant renovation investments.	
Institutional barriers	Lack of capacity among policy administrative, and enforcement authorities.	**Strengthen institutional capacity**
	Poor institutional capacities of HOAs for managing and maintaining, designing, implementing complex investment projects, and adequately procuring professional services.	
Technical barriers	Reliance on outdated and inefficient technology within the majority of the buildings (before ’90).	**Ensure sufficient capacity building and development in the construction industry**
	The design and structure of older buildings often complicate the integration of new technologies, requiring substantial modifications.	**Retrofitting and upgrading**
Fiscal and financial barriers	Lack of investments or subsidies from the government for the implementation of energy efficiency measures.	**Review the option for upscaled and innovative financial mechanisms**
	The high upfront cost for renovations which may hinder affordability and decision-making.	
Information barriers	Lack of awareness of the benefits of renovation, and insufficient information about suppliers.	**Maintain an ongoing awareness campaign**
	Lack of technical knowledge required to assess and define the technical scope for cost-effective EE renovations.	

6.2. KEY ISSUES AND BARRIERS IN KOSOVO

Despite significant efforts to develop a legislative framework for energy efficiency in buildings, Kosovo continues to face numerous challenges in implementing and enforcing these laws. The 2016 Law No. 05/L-101 on Energy Performance of Buildings, which introduced energy performance standards, has only recently begun to be enforced, with the issuance of the country's first energy performance certificate. This is an important milestone, but the delay in enforcement has limited progress in improving energy efficiency across the building sector. The Law No. 08/L-242 on Energy Performance of Buildings, adopted in 2023, marks a step forward, signaling a renewed commitment to meeting regulatory obligations and enhancing energy standards in the construction and real estate sectors.
However, several key issues continue to hinder the full realization of energy efficiency goals in Kosovo:

1. **Delayed Implementation of Legislative Provisions**
   Although the legislation mandates energy efficiency measures, including those targeting the private sector, their implementation has been slow. The Law on Energy Efficiency of 2018, particularly Article 10, which outlines a mandatory Energy Efficiency Obligation Scheme, has not been fully enforced. This scheme is crucial for achieving national energy savings, as it imposes obligations on energy system operators, retailers, and fuel distributors. The failure to implement these provisions represents a missed opportunity to meet energy savings targets, delaying broader progress in improving energy performance.
2. **Lack of Comprehensive Data Infrastructure**
   One of the major barriers to effective decision-making and investment in energy efficiency is the absence of reliable and detailed energy consumption data. Without a reliable data infrastructure, both the government and private sector face difficulties in assessing potential energy savings, designing targeted interventions, and prioritizing investments. The lack of performance metrics and consumption data hinders the ability to evaluate the effectiveness of energy efficiency measures and slows progress towards achieving energy-saving goals.
3. **Challenges in Aligning with EU Standards**
   The 2023 European Commission Report highlights several areas where Kosovo's legal framework remains out of alignment with EU directives. For instance, Kosovo has not yet aligned its Law on Energy Performance of Buildings and Law on Energy Efficiency with the latest EU directives required by the Energy Community Treaty. Moreover, the delayed adoption of Kosovo's National Energy and Climate Plan (NECP), expected by June 2024, has slowed progress in creating a cohesive policy framework for energy efficiency in buildings. The lack of alignment with the EU's Energy Efficiency Directive and Energy Performance of Buildings Directiveunderscores the need for updated regulations and enforcement mechanisms.

4. **Financial Barriers and Lack of Fiscal Incentives**

   Kosovo has yet to implement fiscal policy measures that could incentivize energy efficiency improvements. The absence of CO2 taxes, financial schemes, or fiscal incentives hinders the adoption of energy-efficient technologies and building materials. Without such mechanisms, it becomes difficult to promote large-scale improvements in energy efficiency across the building sector. Additionally, the absence of a Construction Code that mandates minimum energy efficiency standards for building materials further hampers efforts to modernize the country's building stock. Establishing such standards is crucial to ensuring that new buildings meet energy performance requirements and contribute to long-term energy savings.

5. **Slow Progress in Renewable Energy Deployment**

   Although Kosovo has made strides in renewable energy generation, as noted in the European Commission's report, the country still faces obstacles in mobilizing investments in renewable sources to meet its energy efficiency and climate targets. The permitting processes for renewable energy projects, such as solar and wind, remain cumbersome, delaying the faster deployment of renewable energy solutions that could contribute to the overall efficiency of the energy system, including in buildings.

6. **Institutional Capacity and Monitoring**

   While the Energy Efficiency Fund has been established and operational procedures are in place, there is a need to enhance institutional capacity to implement and monitor energy efficiency measures effectively. Without stronger institutions and better monitoring mechanisms, Kosovo will struggle to achieve the energy savings outlined in its energy strategy. The full implementation of the energy performance certification system and the adoption of the Building Renovation Strategy remain critical to realizing the goals of improved energy efficiency in buildings.

Key Issues	Barriers	Priority action areas
Legislative and Regulatory	Significant delays in implementing mandatory energy efficiency measures.	Accelerate implementation and enforcement of existing energy laws.
	Lack of alignment with EU directives on energy efficiency and building performance.	Align the **Law on Energy Efficiency** and **Law on Energy Performance of Buildings** with EU standards.
	Overlapping regulations and unclear administrative processes.	Streamline regulations, reduce overlaps, and clarify administrative procedures.
Institutional	Limited capacity among administrative bodies for enforcing energy efficiency laws.	Strengthen institutional capacity and provide targeted training for policy and enforcement authorities.
	Delays in rolling out energy performance certification and renovation strategies.	Speed up the adoption and implementation of certification systems and building renovation strategies.

Technical	Reliance on outdated and inefficient technology within the majority of the buildings (before '90).	Ensure sufficient capacity building and development in the construction industry
	The design and structure of older buildings often complicate the integration of new technologies, requiring substantial modifications.	Retrofitting and upgrading
Fiscal and Financial	Lack of financial incentives and government subsidies for energy efficiency measures.	Develop innovative financial mechanisms and expand government subsidies for energy efficiency projects.
	High upfront costs for renovations hinder investments in energy efficiency.	Introduce low-interest loans and subsidies to make renovations more affordable for property owners.
Information barriers	Absence of reliable energy consumption data makes decision-making difficult.	Energy Efficiency Fund to establish a comprehensive data infrastructure to support energy efficiency decisions and investments.
	Low public awareness of the benefits of energy-efficient renovations.	Run ongoing awareness campaigns to inform building owners and occupants about energy efficiency benefits.

7. Recommendations

7.1. POLICY RECOMMENDATIONS FOR ALBANIA

ALIGNMENT WITH EU STANDARDS

To effectively address the barriers in Albania's building sector, a comprehensive set of solutions has been proposed.

- **Laws and regulatory practices**
  - Albania needs a robust policy framework that offers clear guidelines, incentives, and enforcement mechanisms to support energy-efficient practices across all sectors. Streamlining regulatory processes and reducing bureaucratic hurdles would make it easier for stakeholders to navigate the system and implement energy-efficient measures.
  - Stricter collection of maintenance fees (rules and court enforcement);
  - Introduce a safety net for low-income homeowners
  - Introduce minimum energy performance standards for building renovation, reconstruction, and use (to accelerate the pace of decarbonisation)
  - Have a mandatory Reserve Fund for maintenance and repairs that can serve as loan collaterals; and
  - Stricter enforcement of EPBD and the certification of the building.

- **Better governance**
  - Assign proper and skilled, multi-disciplinary human resources in ministries responsible for constructions and housing agencies;
  - Mandate specific government agencies to monitor, review and verify EPBD compliance, including the accuracy of Energy Performance Certificates (EPCs); Provide professional management and control over the preparation and implementation of the programme by municipalities;
  - Introduce simple, easily accessible online tenders and application procedures;
  - Create a central information site on the availability of financing schemes for residential building renovations.

- **Increased technical assistance**
  - Facilitating access to modern energy-efficient technologies through government programs or public-private partnerships can help address the barriers in this area. This could involve tax incentives for importing

energy-efficient products or subsidies for purchasing these technologies.

- Investing in capacity building and training programs for professionals in the building sector can bridge the knowledge gap. These programs should focus on the latest technologies, best practices, and maintenance of energy-efficient systems.
- Develop and implement a technical assistance service nationwide (One Stop Shop) to support scoping EE renovations and increase the capacity of:
    - Homeowners associations/condominiums;
    - Municipal Energy Managers and experts;
    - Energy auditors and designers;
    - Contractors/construction companies;
    - Specialists in the municipal advisory offices.
- Implement proper monitoring and verification (M&V) protocols, to ensure effectiveness of the investment programmes.

Develop effective financing instruments

- **Partner Banks, IFIs, and Donors:** Financial institutions, international financing institutions (IFIs), and donors should design financial products specifically suited to the energy efficiency market. This includes developing customized loans, investment funds, and financing options that address the unique needs and challenges of energy-efficient renovations.
- **Targeted Financial Support:** Introducing subsidies and grants specifically for energy-efficient renovations can significantly reduce the financial burden on property owners. By lowering upfront costs, these financial aids can encourage more widespread adoption of energy efficiency practices.
- **Government Programs and Partnerships:** Implementing low-interest loan programs through government initiatives or in partnership with financial institutions can make energy efficiency improvements more accessible. These loans should be designed to offer favorable terms and conditions to incentivize investment in energy-efficient technologies and renovations.
- **Encouraging Efficient Design:** Promoting building designs that facilitate retrofitting is crucial. For new constructions, incorporating energy-efficient designs from the beginning makes future upgrades easier and more cost-effective. This proactive approach can also enhance the overall sustainability of new buildings.
- **Supportive Infrastructure Investments:** For existing buildings, it is essential to invest in upgrading infrastructure to support modern energy-efficient technologies. This includes enhancing power grids, updating heating systems, and ensuring that existing infrastructure can accommodate new

energy-efficient systems. Such upgrades will enable existing buildings to integrate energy-efficient solutions more effectively and support their long-term performance.

- **Increase public awareness**
  - Targeted campaigns for policymakers and building owners should be developed and implemented to explain the multiple benefits of energy renovations.
  - Establish platforms to provide public information and promotional campaigns.

7.2. POLICY RECOMMENDATIONS FOR KOSOVO

- **Laws and regulatory practices**
  - The Kosovo Government to introduce minimum energy performance standards for building renovation, reconstruction, and use, as part of the National Energy Strategy, to accelerate energy efficiency.
  - Strengthen enforcement of the Energy Performance of Buildings law by establishing clear penalties for non-compliance and ensuring mandatory certifications for all buildings.
  - Establish a mandatory reserve fund for building maintenance and repairs, which can be used as collateral for financing energy-efficient upgrades.
  - Develop a targeted subsidy program to assist low-income homeowners in implementing energy-efficient renovations, reducing the financial burden on vulnerable groups.

- **Better Governance**
  - Train municipal authorities and housing agencies to effectively manage and oversee energy efficiency programs at the local level.
  - Designate a government agency to monitor compliance with energy performance standards and verify the accuracy of energy performance certificates (EPCs).
  - Set up a centralized platform to provide information on financing schemes and support available for residential building renovations.
  - Simplify application procedures for energy efficiency projects, making it easier for stakeholders to access funding and participate in government programs.

- **Increased Technical Assistance**
  - Develop a national technical assistance program (One Stop Shop) to provide guidance to homeowners, municipalities, contractors, and energy auditors on energy efficiency renovations.
  - Invest in capacity-building programs for the construction sector to promote the use of modern energy-efficient technologies in building design and renovation.
  - Establish monitoring and verification protocols to ensure that energy efficiency investments are delivering expected results and savings.

- **Develop Effective Financing Instruments**
  - Partner with local banks and international financial institutions to create tailored financial products, such as low-interest loans and grants, specifically for energy efficiency renovations.
  - Launch a government-backed financing scheme that provides subsidies and grants to reduce the upfront costs of energy-efficient renovations for property owners.
  - Invest in upgrading infrastructure, including power grids and heating systems, to support the adoption of energy-efficient technologies in existing buildings.

- **Increase Public Awareness**
  - As part of the National Energy Strategy implementation, launch a public awareness campaign to educate building owners on the benefits of energy-efficient renovations and available support programs.
  - Create a public information platform that provides easy access to resources on energy efficiency and financing options for building upgrades.

8. Integration of Solutions into Policy Frameworks

8.1. STRATEGIES FOR ALBANIA

Long-term renovation strategy must be the main policy document for overpassing the challenges in the building sector. Understanding the characteristics of the existing building stock is crucial for developing effective energy efficiency strategies. Retrofitting and upgrading these buildings can lead to significant energy savings and improved comfort for occupants. Also, providing financial incentives, such as grants, subsidies, tax credits, or low-interest loans, can stimulate investment in energy efficiency upgrades for buildings. These incentives can help overcome financial barriers and incentivize building owners to undertake energy-saving measures, such as insulation, window replacements, HVAC system upgrades, and energy-efficient lighting.

Raising public awareness about the importance of energy efficiency in buildings can foster a culture of energy conservation and sustainability. Education campaigns, workshops, and outreach activities can inform building occupants about simple actions they can take to reduce energy consumption, such as adjusting thermostats, using energy-efficient appliances etc.

To integrate these solutions into current and future policy frameworks, Albania must take a strategic approach. First, enhancing the policy framework is essential. This includes developing comprehensive, enforceable policies that provide financial incentives, clear guidelines, and streamlined regulations to facilitate easier compliance and adoption of energy-efficient practices. Policies should also be designed to be adaptable, allowing for updates as new technologies and practices emerge.

- **Strengthening financial support mechanisms** is a critical step. The government should establish funding schemes, such as subsidies, grants, and low-interest loans, that are specifically targeted at energy efficiency projects. These mechanisms would help overcome the barrier of high initial costs, making energy-efficient renovations more financially viable for property owners.
- **Investing in capacity-building programs** is equally important. By supporting training and professional development for those working in the building sector, Albania can ensure that there is a skilled workforce ready to implement and maintain energy-efficient technologies effectively. This investment in human capital is crucial for the long-term success of energy efficiency initiatives.
- **Public engagement** should also be a priority. Launching extensive public awareness campaigns to educate citizens about the benefits of energy

efficiency, both environmental and economic, will help foster a culture of energy efficiency. Engaging communities through participatory approaches, such as public consultations and workshops, will ensure that energy efficiency measures are aligned with the needs and preferences of the population, increasing the likelihood of successful implementation.

- **Upgrading infrastructure** is vital to support the adoption of modern energy-efficient technologies. Investments in improving power grids, heating systems, and other critical infrastructure will ensure that these systems can handle the demands of energy-efficient technologies, thereby facilitating their integration.

By addressing these key areas, Albania can create a supportive environment for the widespread adoption of energy-efficient practices, ultimately leading to significant improvements in the building sector.

8.2. STRATEGIES FOR KOSOVO

Kosovo's long-term strategy for energy efficiency in buildings must prioritize the full implementation of the **Law on Energy Performance of Buildings**. A comprehensive understanding of the existing building stock is essential for formulating effective energy efficiency policies. Upgrading and retrofitting buildings to meet modern energy performance standards will lead to significant energy savings and improve the quality of life for occupants. A combination of financial incentives, such as grants, subsidies, and low-interest loans, will be crucial to overcoming the financial barriers that often prevent building owners from making energy-efficient improvements, such as better insulation, energy-efficient windows, and upgraded heating systems.

To drive the integration of these solutions into the policy framework, Kosovo needs a well-defined advocacy plan. **The implementation phase of the Law on Energy Performance of Buildings** offers an opportunity to push for the adoption and enforcement of secondary legislation. A key strategy will be to establish monitoring mechanisms that ensure timely and effective implementation of these legal provisions.

Kosovo Sustainable Development Week (KSDW), a joint event co-organized by **INDEP, the Balkan Green Foundation (BGF), the Ministry of Economy, the Ministry of Environment, GIZ, and the EU Office**, will be held in early May 2025. This platform will be instrumental in advocating for the adoption and enforcement of energy efficiency policies. It will allow stakeholders to present findings, share recommendations, and engage with decision-makers on the urgency of implementing energy-efficient practices in the building sector.

By gathering experts, government representatives, and international partners, KSDW can build momentum for policy action.

Additionally, the **February 2025 general elections** present a critical opportunity to engage political parties and candidates. By sharing the key findings and recommendations from ongoing research on energy efficiency in buildings, political parties can incorporate these insights into their platforms. This can ensure that energy efficiency becomes a priority in national policy discussions and is integrated into future government programs. Advocacy efforts should target the inclusion of energy-efficient building policies in party manifestos, emphasizing both environmental and economic benefits.

Furthermore, Kosovo must strengthen its **financial support mechanisms**. The government should develop funding schemes, including grants, subsidies, and tailored financial products that encourage energy-efficient renovations. These schemes should address the high upfront costs that often discourage property owners from undertaking energy-efficient improvements. The government could also explore partnerships with international financial institutions (IFIs) to expand financing options.

Building technical expertise is also critical. Kosovo should invest in **capacity-building programs** that train key stakeholders such as municipal energy managers, contractors, and auditors. Ensuring that the building sector is equipped with the knowledge and skills to implement and maintain energy-efficient technologies is vital for long-term success.

Public awareness is another essential component. Kosovo's government should develop a program to educate building owners on the benefits of energy-efficient renovations, including cost savings and improved living conditions. Campaigns and workshops during KSDW and beyond can help increase awareness among the public and private sectors, fostering a culture of energy conservation.

Lastly, improving **infrastructure** to support energy-efficient technologies is necessary. Investments in upgrading power grids, heating systems, and other critical infrastructure will ensure that the country can support modern energy-efficient technologies and can facilitate their widespread use.

8.3. ROADMAP FOR IMPLEMENTATION

	Short term 0-5 yrs	Medium term 6-10 yrs	Long term over 10 yrs	Lead Institution
2030 ENERGY EFFICIENCY TARGETS AND POLICY MEASURES	**Albania:** Review targets on National Energy and Climate Plan of the Republic of Albania Full implementation and enforcement of energy legislation. Facilitation of bureaucratic procedure, clear guidelines. **Kosovo:** Aprouvement of the National Energy and Climate Plan in the Republic of Kosovo. Ensure full implementation of the Law on Energy Performance of Buildings, focusing on secondary legislation and its enforcement. Simplify bureaucratic processes and ensure clear communication with all stakeholders. Monitor compliance through energy performance certificates and audits.	**Albania:** Enhance long term renovation strategies related to the building's renovation plans. Enforcement mechanisms to drive compliance and adoption of energy efficient practices. Create a clear path towards achieving a low and zero- emission building stock in Albania by 2030. **Kosovo:** Integrate energy-efficient renovation strategies into the National Energy Strategy. Focus on retrofitting older buildings to meet energy efficiency standards, while ensuring compliance with updated building codes and energy performance certifications.	**Albania:** Monitoring and achievement of targets. An integrated approach and consistency across all relevant policies is necessary for the modernization of the buildings environment involving all relevant parties, including safety, affordability, environmental and circular economy aspects. **Kosovo:** Establish a clear roadmap towards achieving low-emission and zero-emission building stock by 2030, ensuring alignment with EU energy efficiency targets.	The Ministry of Infrastructure and Energy **Kosovo:** Ministry of Economy, Ministry of Environment
ENERGY EFFICIENCY AND MANAGEMENT IN BUILDINGS	**Albania:** Establishment of database towards development of EE codes of practice for buildings. Establish an EE technical assistance administrator entity	**Albania:** Adopt energy performance codes and standards for existing buildings. Implement standards that require improvements to the building's energy	**Albania:** Develop a heating and cooling strategy. Offer financing for residential retrofits to boost grid integration and heating sector decarbonisation.	The Agency for Energy Efficiency

	responsible for assisting municipal utilities and state agencies in developing EE customer programs. Development of energy auditing and reporting guidelines. Maintain two-way and continuous communication. Ensure that there are nominated contact points where stakeholders can send questions or obtain further information. Communication should remain open, and the relevant authorities should continuously monitor stakeholder feedback and promptly address any queries or concerns. **Kosovo:** Create a centralized energy efficiency database to support the enforcement of energy performance standards and facilitate building audits.	performance of the envelope or systems when undertaking significant works, whether they were part of an energy retrofit or not. **Kosovo:** Establish a technical assistance body to support municipalities and state agencies in energy efficiency programs. Municipal Officials for energy that currently exist need to increase their capacities to go to the level of these bodies.	Introduction of building renovation passports to guide building owners in their staged and deep energy renovations. Consider establishing an independent committee to monitor and report progress – this helps ensure that evaluation is objective and credible and avoids actual or perceived conflicts of interest (given that those reviewing the strategy and its implementation are not the same as those tasked with delivering on its goals). **Kosovo:** Develop a long-term heating and cooling strategy focused on integrating renewable energy. Introduce building renovation passports to help property owners plan energy-efficient renovations.	
ENERGY EFFICIENCY SCHEME AND FINANCING	**Albania:** Incorporate EE aspects in the public procurement system. Capacity building and training programs for professionals. Collaborate with academia and research outfits. Partnering with academic organizations and research institutes specialized in energy efficiency and building science can be employed to conduct research and studies in the areas	**Albania:** Develop a strategic investment programe, green banks. Allow state agencies flexibility in how to fund EE projects including the ability to carry an EE reserve fund. Legal requirement to establish a Homeowners' Association (HoA) and grant legal personality – this creates an ability to raise finance on behalf of the multiple owners, but also to enforce the collection of funds.	**Albania:** Increase funding for housing trust fund to improve energy efficient affordable housing options in the state. Ensure that the most effective application of financial measures related to energy efficiency are applied in the best way in building renovation.	The Agency for Energy Efficiency, Ministry of Economy, Culture and Innovation **Kosovo:** Ministry of Economy, Kosovo Credit Guarantee Fund, Kosovo Universities

	where information is lacking. Consideration could also be given to establishing data sharing platforms where relevant energy performance data and renovation activities can be collected and shared. **Kosovo:** Launch capacity-building programs in partnership with universities and research institutes to provide training for professionals on energy-efficient construction and renovation techniques.	Obligation to periodically contribute to a common fund for maintenance, renovation, and energy efficiency – this is an extension of the governance rules and in many cases, there already exist such obligations among the co-owners of the common spaces for repairs and maintenance. This could be extended to cover energy efficiency upgrades. **Kosovo:** Develop a national investment program for energy efficiency projects, including the enforcement of an Energy efficiency window of investement under Kosovo Credit Guarantee Fund.	**Kosovo:** Expand funding options for affordable housing renovations with energy efficiency components and offer special programs for Energy Communities under the Law on Promotion of Energy from Renewable Sources.	
ENERGY EFFICIENT PRODUCTS – LABELLING	**Albania:** Collect technology specific data, access to modern energy efficient technologies. Regulatory measures: Informative labels; Minimum energy performance standards. Raising awareness to use energy efficiency devices. Support research, development and demonstration measures to accelerate the deployment of new or improved construction	**Albania:** Strategy for building renovation. Enforcement activities – product testing and correct labelling in shops. Taxes on electricity prices; Energy saving and CO2 reduction obligations on energy suppliers. Data and market analysis. Technology and cooperative procurement. Identification of most efficient products.	**Albania:** Sustainable financial scheme for investment in the residential sector. Develop the domestic appliance market. Market transparency and the enforcement of regulations which have an impact on market stakeholders' behavior. Launch pilot programs for intelligent appliances.	The Agency for Energy Efficiency, Municipalities Kosovo Ministry of Economy, Energy Regulatory Office, Energy Efficiency Fund

	technologies, techniques, materials, and components for the renovation of buildings. Promotion of good practice **Kosovo:** Establish databases on energy-efficient technologies and products available in the market. Run awareness campaigns to educate consumers on the benefits of using energy-efficient appliances and systems. Promotion of good practice.	**Kosovo:** Introduce minimum energy performance standards and mandatory labeling for energy-efficient products. Set up enforcement mechanisms to ensure correct labeling and compliance. Establish taxes or incentives tied to energy efficiency to encourage the use of efficient products.	**Kosovo:** Sustainable financial scheme for investment in the residential sector. Launch pilot programs for smart appliances to boost energy efficiency in households and commercial buildings, especially in the Energy communities.	
EFFICIENCY IN HEATING AND COOLING	**Albania:** Promote the use of renewable energy heating. Conduct pilot projects. Implementing pilot and demonstration projects can be used to collect actual data on energy performance, costs, and other technical characteristics. **Kosovo:** Promote structural modifications in buildings to integrate energy-efficient heating and cooling systems especially in the residential sector.	**Albania:** Structure modification of buildings, expertise in implementing and maintaining them. Increase deployment of solar technologies on all buildings. Create a unified standardized waiver for homeowners that allows energy consumption data to be shared with all relevant state agencies. Identify need for follow-up or continued support. Deliver training programes, including 'Train the Trainers', ongoing training of professionals and practical training of the construction workforce.	**Albania:** Further roll- out of recharging points for electric vehicles in buildings, removing barriers to their installation, anabling smart charging and introducing measures for bike parking in buidings. **Kosovo:** Expand the installation of electric vehicle charging points in residential and commercial buildings. Promote smart charging systems and provide incentives for the integration of renewable energy--based heating and cooling in new and existing structures.	The Agency for Energy Efficiency, Municipalities Ministry of Economy, Agency of Statistics, Energy Regulatory Office

		Kosovo: Scale up the installation of solar thermal technologies in both residential and commercial buildings. Develop standardized data-sharing protocols to allow energy consumption information to be shared with government agencies for monitoring and optimization		
EDUCATION AND AWARENESS	**Albania:** Launch Energy efficiency campaign, educational material for schools. Develop sector specific EE toolkit from existing and new online resources. Highlight success stories. Use examples of successful renovation projects to demonstrate the benefits and possibilities of the strategy, and to highlight and disseminate knowledge regarding replicable learnings and good practices. **Kosovo:** Highlight successful energy renovation projects through media campaigns and workshops.	**Albania:** One stop shop for the energy renovations of buildings for homeowners, small and medium sized enterprises and other stakeholders. Undertake relevant surveys and data gathering exercises. Targeted surveys and data collection efforts can be used to obtain the missing information. Stakeholder groups such as local authorities, professional organisations and industry associations could be involved in such activities. **Kosovo:** Set up a „One-Stop Shop" for energy efficiency renovations, providing guidance for homeowners and businesses. The one-stop shop can be part of the one already planned for the RES investments.	**Albania:** Data collection and sharing, to improve knowledge on the building stock and awareness on energy consumption in buildings. Obtain information through stakeholder engagement. The engagement and consultation discussed can be used as an opportunity to obtain the relevant information and valuable 'on-the-ground' insights. Dedicated workshops, roundtables and expert consultations could also be used to collect the relevant information and draw on relevant knowledge and expertise. **Kosovo:** Develop a centralized data-sharing system to track energy consumption in buildings. Organize workshops and consultations with stakeholders, including municipal officials for Energy to continuously share knowledge and improve energy efficiency practices	Academic Institutions, University and Nonforprofit entites

8.4. BEST EXAMPLES

Albania

The In 2017, the Municipality of Tirana created the Community Fund, which aims to promote effective cooperation between citizens for the improvement of the infrastructure of residential blocks and the preservation of jointly owned premises.

The “Community Fund” program aims to promote effective cooperation among citizens for the improvement of the infrastructure of residential blocks and the preservation of common areas. Through a funding scheme, residents of different neighborhoods of the capital can organize together under the leadership of Administrators to benefit from co-financing for infrastructure projects that address a specific problem in their community. Through this program, a series of objectives are aimed to be achieved, which are not only related to the improvement of common areas, but also aim to change the mentality of cooperation between citizens and public institutions.

This program is a very good opportunity to turn citizens into essential parts of the decision-making process towards personal and community needs. The program also contributes to their awareness by giving them more responsibility in the management of funds and in the maintenance of common areas. One of the criteria for granting the fund is the co-financing criteria. Co-financing by co-owners must be at least 50% of the total fund. The application fund limit is up to 50,000 euro.

The fund covers:

- Facade Maintenance.
- Works to eliminate architectural barriers and adapt buildings to people with disabilities.
- Projects to maintain or increase energy efficiency or have a positive environmental impact.
- Terrace maintenance.
- Maintenance of areas within residential blocks.

Kosovo

The Kosovo Energy Efficiency and Renewable Energy Project (KEEREP) stands as a significant initiative supported by the World Bank through an IDA credit of $31 million. The project aims to improve energy efficiency (EE) in public buildings and strengthen Kosovo’s regulatory and policy environment for renewable energy (RE) and EE, aligning with the country’s energy transition goals.

The project's primary objectives are to:

- Reduce energy consumption and dependence on fossil fuels in public buildings through EE and RE investments, and
- Enhance the policy and regulatory framework for energy efficiency and renewable energy development.with disabilities

The project serves as a best practice for its structured, multi-component approach to achieving tangible energy savings and fostering a sustainable energy environment.

The largest component of the project focuses on upgrading the energy performance of public facilities, including central government and municipal buildings. Investments target measures such as thermal insulation, heating system modernization, and integration of renewable energy systems. These nterventions aim to achieve verifiable energy cost savings, reduce emissions, and improve user comfort, including better indoor air quality and temperature regulation. Notably, it is projected that energy savings in these public buildings can exceed 40%, showcasing the substantial potential for energy efficiency improvements.

To encourage local-level action, the project includes a pilot financing program for municipalities to implement energy efficiency measures in their public facilities. Municipalities are required to co-finance part of the investments, testing sustainable funding schemes such as partial contractor payments based on verified energy savings. This model promotes shared responsibility and creates pathways for scaling up commercial financing for EE initiatives.

The project also emphasizes building technical capacities within the energy sector. This includes training firms and contractors on EE/RE technologies, supporting energy audits, and supervising project implementation to ensure quality and compliance. Furthermore, it integrates public awareness campaigns to highlight the benefits of energy efficiency and sustainability in buildings.

The KEEREP demonstrates how targeted investments, combined with policy and capacity-building measures, can deliver economic, environmental, and social benefits. It not only reduces energy expenditure in the public sector but also contributes to Kosovo's broader goals of decarbonization, energy security, and climate change mitigation.

This initiative serves as a replicable model for scaling energy efficiency measures across the Western Balkans, emphasizing the importance of co-financing mechanisms, technical expertise, and stakeholder engagement in achieving sustainable energy transitions.

9. Conclusions

Albania and Kosovo have both made important progress in setting up legal frameworks to improve energy efficiency, especially in the building sector. Albania's Energy Efficiency Law and the Law on Energy Performance of Buildings create the foundation for promoting energy conservation in public and private sectors. Kosovo has introduced similar core laws, though delays in additional regulations have slowed implementation. Both countries aim to align with EU standards, supporting their integration into the EU energy market and closer ties to the European Community.

Challenges remain in turning these laws into effective action, as both countries face limitations in funding, technical expertise, and practical implementation. Albania has yet to develop a comprehensive, long-term renovation strategy and needs stronger financial incentives for energy-saving projects. Proposed funding options include green bonds, energy performance contracts, and subsidies for energy-efficient appliances and materials. Kosovo, in particular, would benefit from better systems for tracking and monitoring energy use, which could support more targeted policy decisions. Both countries could make a significant impact by focusing on programs for low-income and vulnerable households, which would help reduce energy poverty. Kosovo's efforts could be strengthened by more public awareness campaigns to encourage energy-saving practices among building owners and occupants, and by creating specific financial support tools, like green banks, for low-income homeowners.

Regional cooperation offers valuable opportunities for both countries to address common challenges in energy efficiency across the Western Balkans. Initiatives like the Green Agenda for the Western Balkans and the Berlin Process provide a framework for sharing knowledge, aligning policies, and investing in joint projects. Participation in these initiatives would allow Albania and Kosovo to access additional technical support, attract international funding, and coordinate on cross-border energy solutions. Additionally, pilot projects, supported by international organizations, could showcase sustainable building practices and further promote adoption of energy-efficient technologies. These efforts support both countries' progress toward sustainable energy futures and strengthen their pathways toward EU integration and economic resilience.

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ABOUT THE PROJECT

As buildings account for the largest share of energy consumption in Europe, improving their energy efficiency and reducing their energy consumption are key pillars in the pursuit of a decarbonised building stock by 2050, contributing to the implementation of the European Green Deal.

Kosovo and Albania, both officially considered as potential candidates for EU membership, have some of the most inefficient building stocks and the two highest energy poverty rates (40% and 37% respectively) in Europe. Despite their plans to reduce energy consumption, Kosovo and Albania lack adequate policy frameworks to scale up improvements – especially in the residential building sector – and support measures that could accelerate renovation.

Drawing on evidence-based analyses, the project provides the governments of Kosovo and Albania with policy recommendations on how to improve the energy efficiency of buildings. The Kosovan and Albanian partners provide expertise based on the two national contexts and engage with local target groups, while the Polish and Hungarian partners share their expertise in EU policy. Training measures, workshops and consultations are organised to provide central and local administrations with the know-how and tools needed to develop long-term renovation strategies in line with EU policies, including the Energy Performance Certificate Framework.

One focus of the project is on energy poverty, which is particularly prevalent in Kosovo and Albania. Policy recommendations are developed, and guidance is provided to local authorities and the national government on how to disseminate information to citizens and the private sector on energy efficiency measures in renovations. Local governments, the private sector, and civil society are trained to establish one-stop shops as a means to facilitate and accelerate the climate-friendly renovation of buildings.

Supporting the implementation of EU climate and energy legislation in Kosovo and Albania can also help to pave their way to EU membership.

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