Consultancy Service

Report for Identification of Policy Changes for Improvement of the Energy Sector in Albania

Prepared for:

"Center for Promotion of Sustainable Agricultural Practices and Rural Development CeProSARD"

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1. Comprehensive Analysis of Current Legislation

This section provides an in-depth analysis of the existing national legislation related to energy efficiency in buildings in Albania, identifying the relevant legal acts, policies, and institutions that shape the regulatory landscape.

1.1 Energy legislation

Law No. 43/2015, date 30.4.2015, " On Energy sector " , changed
Sets out the main principles for the energy sector development, including RES power plants and the transmission and distribution networks. Law transposes the EU Directive 2009/72 on electricity and repealing the previous law on electricity.

- DCM No. 480, dated 31.7.2018, On the Approval of the National Energy Strategy for the Period 2018–2030
Albanian government is committed to supporting the low-carbon economy. The government is further committed to integrating this Strategy with climate change actions in the framework of the Paris Agreement and the UNFCCC convention. The document was commented on and reported on by the Energy Community Secretariat in Vienna
Development of national energy resources leading to an integrated and diversified regional energy system based on market principles, capable of meeting energy demand and sustainable economic development, ensuring security and quality of supply, security, environmental protection and climate action, and increasing welfare at minimal social cost.

National Energy and Climate Plan (NECP) 2023-2030, which outlines goals for renewable energy, energy efficiency, and carbon emission reduction

USAID , March 19, 2018 " On Energy Strategy for Albania"
Enhancing Capacity for Low Emission Development Strategies (EC-LEDS)

1.2 Energy Efficiency Legislation

- **Law No. 124/2015** "On Energy Efficiency", amended by law 28/2021

This law is partially aligned with Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC. Number CELEX-32012L0027, Official Journal of the European Union, L series, no. 315/1, dated 14.11.2012

Regarding the Law on Energy Efficiency (124/2015), changed a series of rules DCM (Decrees of Council of Ministers) have been issued. These regulations and policies below influence in the energy efficient measures and improvement.

- **DCM No. 852, dated 7.12.2016**, "On the Establishment and the Manner of Organization and Functioning of the Agency for Energy Efficiency"
- **DCM No 342, dated 22.5.2019**, On the Approval of the Categories, Conditions and Qualification and Requirements for Energy Manager
- **DCM No 407, dated 19.06.2019**, On the Approval of the Procedure, Categories, Conditions, Qualification Requirements and Professional Experience for the Person to Whom the Energy Auditor Certificate Issued
- **DCM No Nr.256, dated 27.3.2020,** On the Approval of the Methodology for Calculating Optimal Cost Levels for Minimum Energy Performance Requirements of Buildings, Units and Building Elements
- **DCM No. 537, dated 8.7.2020**_ On the Approval of Minimum Energy Performance Requirements for Buildings and Building Elements
- **DCM No. 958, dated 2.12.2020**, On the Approval of the Procedures and Conditions for the Certification of the Energy Performance of Buildings and the Model, Content of the Conditions for the Registration of the Building Energy Performance Certificate"
- **Ministerial Instruction No. 23, dated 17.11.2022** On Promoting the Development of the National Energy Services Market in the Republic of Albania, by Defining the Rules and Procedures for the Operation of Energy Service Companies (ESCO).
- **National Energy Efficiency Action Plan** (NEEAP),

NEEAP tries to follow the: directive 2006/32/EC, on "energy efficiency end use and energy services", directive 2002/91/EC "on energy performance building" (amended on 2010/31/EP), directive 92/75/EC (amended on 2010/30/EP).
NEEAP provides a package of measures for the most important final energy demand sectors: Residential, Services, Industry and Transport and estimation for energy savings in Agricultural.
Energy Saving Target by Sector

Sector	**(%)**
Residential	22
Services	19
Industry	25
Transport	31
Agriculture	3
Total Saving Potential	100%

1.3 Energy Performance of Buildings Legislation

About one-third of global energy is consumed in residential, public, and commercial buildings (collectively referred to as buildings), where it is used for space heating, cooling, ventilating, lighting, cooking, water heating, refrigerating, and operating electric and mechanical devices. Global energy use in buildings is expected to grow as cities in developing countries continue to modernize and per capita income levels continue to increase.

- Law No. 116/2016 "On the Energy Performance of Buildings" is a legal framework adopted in Albania to improve the energy efficiency of buildings. It aims to ensure the rational use of energy, reduce greenhouse gas emissions, and align national standards with EU directives. The law introduces requirements for energy performance certification, promotes nearly zero-energy buildings, and applies to both new constructions and major renovations of existing buildings.

- **New Law on the Energy Performance of Buildings"** (Under approval process by the parliament of Albania)

This law , will replace Law No. 116/2016 and aims to promote and improve the energy performance of buildings and reduce greenhouse gas emissions caused by the building stock in the Republic of Albania, considering external climatic conditions, local conditions, requirements for indoor environmental quality, the optimal cost level, aiming for a zero-emission building stock by 2050.

This law is partially aligned with Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the Energy Performance of Buildings

- **DCM No., dated .12.2024, "On the Approval of the Long-Term Strategy for the Renewal of the Building Stock**

Energy Performance of Buildings Directive (EPBD 2010/31/EU, as amended by Decision 2021/14/MC of the Ministerial Council of the Energy Community) requires Albania to establish a Long-Term Building Renovation Plan to improve the energy efficiency of the national stock of public, private and residential buildings in a cost-effective manner. This plan will include a roadmap for the implementation of appropriate measures towards achieving the long-term 2050 objective of reducing greenhouse gas emissions in the Energy Community by 80-95% compared to 1990, with indicative milestones for 2030 and 2040, with the aim of achieving a decarbonised building stock by 2050.

1.4 Energy from Renewable Sources

- **Law No. 24/2023** "On the Promotion of the Use of Energy from Renewable Sources"
  (Partially aligned with Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, as amended. CELEX number 32018L2001, Official Journal of the European Union, Series L, no. 328, dated 21.12.2018, pp. 82-209
- **Law no.7/2017 "**On Renewable Energy Sources"
  (Partially transposes the Directive 2009/28/EU.)
- **DCM No. 27, dated 20.1.2016** "On the Approval of the National Action Plan for Renewable Energy Sources, 2015–2020

- **Law no. 9876, date 14.02.2008**, on the production, transporting and trading of biofuels and other renewable fuels used in transport.

- **Regulation (EU) 2018/1999** is a key EU regulation that establishes the framework for the governance of the Energy Union and climate action. Its main goal is to ensure that all Member States plan, implement, and report their energy and climate policies in a coordinated and transparent manner. The regulation requires the submission of National Energy and Climate Plans (NECPs), regular progress reports, and long-term strategies to help the EU achieve its 2030 and 2050 energy and climate targets.
- **Directive (EU) 2024/1275** is the European Union's primary legislative instrument aimed at enhancing the energy performance of buildings. It seeks to reduce greenhouse gas emissions and energy consumption in the building sector, aligning with the EU's broader climate objectives.

All above documents repository will be enriched through meeting with Albanian authorities and the EU delegation.

1.5 Review of International Standards and Best Practices

Albania's legislative efforts are guided by EU directives and international best practices:

- **EU Directive 2010/31/EU on Energy Performance of Buildings**: Serves as the primary framework for national legislation on building energy efficiency.
- **EU Directive 2012/27/EU on Energy Efficiency**: Influences national policies on energy savings and efficiency measures across sectors.
- **EU Directive 2018/2001 on Renewable Energy**: Guides the integration of renewable energy sources into the energy mix, impacting building energy performance.
- **UNECE Guidelines**: Provide recommendations for developing national roadmaps for energy-efficient residential sectors, which Albania is currently undertaking.

1.6 Comparative Legal Analysis Benchmarking Albania's Framework Against Global Practices

When compared to EU member states, Albania has made significant strides in aligning its legislation with EU directives. However, gaps remain:

- **Implementation Delays**: While laws have been enacted, the delay in adopting necessary secondary legislation hampers full compliance and enforcement.
- **Institutional Capacity**: Limited resources and expertise within institutions affect the effective implementation and monitoring of energy efficiency measures.
- **Financial Mechanisms**: Unlike some EU countries with established energy efficiency funds, Albania lacks dedicated financial instruments to support energy efficiency projects.

- **Public Awareness and Engagement**: Efforts to raise awareness and engage stakeholders in energy efficiency initiatives are less developed compared to best practices observed in other countries.

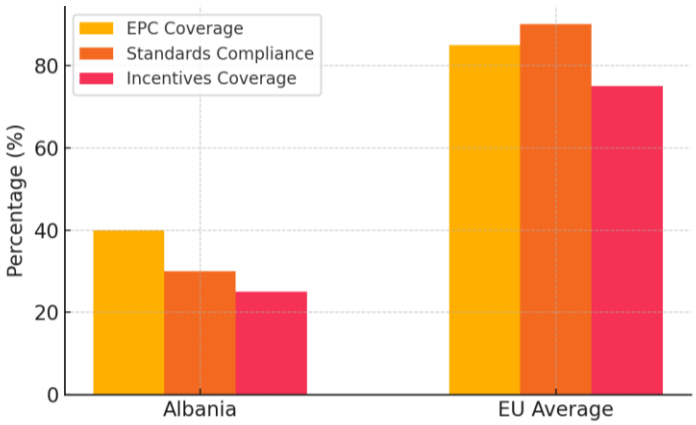

Figure 1: Comparative Overview of Energy Efficiency Policy Implementation

2. Identification of Key Gaps and Challenges

2.1 Key Objectives

- **Zero-Emission Buildings**: Mandates that all new buildings be zero-emission by 2030. Existing buildings are to achieve zero-emission status by 2050.
- **Minimum Energy Performance Standards (MEPS)**: Introduces MEPS for non-residential buildings, requiring the worst-performing buildings to reach at least energy class F by 2030 and class E by 2033.
- **National Building Renovation Plans**: Obliges Member States to develop comprehensive renovation plans targeting all public buildings, aiming to at least double the annual energy renovation rate by 2030.
- **Solar Energy Integration**: Promotes the installation of solar systems on buildings, with new constructions required to be solar-ready.
- **Phase-Out of Fossil Fuel Boilers**: Initiates a gradual phase-out of fossil fuel boilers, starting with the end of subsidies for such systems from January 2025.

2.2 Key issues identified:

- Incomplete transposition of EU directives on energy performance of buildings.

- As is stated above, most of the existing national legislation is not completely in line with of EU directives.

- In addition, even are made efforts to follow EU directive we must emphasize that although Albania provides over 95% of its electricity from hydroelectric power plants, it imports a considerable portion of its energy, which varies – depending on annual conditions – between 30% and 60% of the total primary energy supply. Renewable energies can be a solution to reduce this dependence on imports and to improve not only the security of energy supply, but also the macroeconomic and political security of the country by reducing the country's budget deficit.

- Outdated provisions regarding building codes and certification

- Fragmentation across implementing agencies.

The institutional structures capacities are established under the **Ministry of Infrastructure and Energy (MIE),** responsible for the energy sector and is designated to prepare, periodically review and update the National Energy Strategy; develop energy policies and mid-term and long-term strategies for the energy sector; develop market reforms in the sector to meet the national objectives and comply with European Union (EU) directives; formulate adequate legal framework; and promote energy efficiency, renewable energy resources and investments in the sector through enabling investment environments

The National Agency of Natural Resources (AKBN) is under the supervision of MIE and is designated for the development and supervision of rational use of natural resources, according to the policies of the government. The agency monitors the sustainable use and rehabilitation of natural resources in mines, hydrocarbons and Renewable Energy. In addition, AKBN carries out analytical and technical examinations of studies and projects; monitors the implementation and operation of projects, such as concessionary contracts for hydropower; and compiles and publishes annual energy balance sheets at the national and regional levels in compliance with Eurostat and international energy agency formats. AKBN provides energy data to the National Institute of Statistics (INSTAT).

The Energy Efficiency Agency is state-funded, reports to the MIE and is responsible for the preparation and monitoring of the implementation of the National Action Plan for Energy Efficiency, along with monitoring the implementation of energy efficiency programs in residential and institutional building sectors, transport, industry, and agriculture. The agency also undertakes energy audits, provides certifications for energy auditors and advises on the preparation of bylaws that promote energy efficiency.

Even though the duties of responsible Agencies are legally defined by law, there are overlaps and non-synchronizations of tasks and responsibilities. This requires the authorities to engage in processes of deregulation of legislation in this field.

- Weak compliance and enforcement mechanisms

Benchmarking against EU best practices (e.g., Germany, Croatia, and Austria) reveals Albania lags in mandatory energy performance standards, certification systems, and incentive structures.

- Examine legislative gaps, inconsistencies, and outdated provisions that hinder effective implementation.

Despite progress, several challenges hinder effective implementation:

- **Incomplete Secondary Legislation**: Several by-laws necessary to fully implement primary laws remain pending, affecting areas such as energy audits, monitoring, and verification of energy savings.
- **Lack of Independent Control Systems**: Provisions related to the independent control of energy performance certification and inspection of heating and air-conditioning systems are not fully operational.
- **Absence of Dedicated Energy Efficiency Fund**: Financing for energy efficiency projects is primarily reliant on the state budget and foreign aid, with no dedicated national fund established.
- **Outdated Regulations**: Some existing regulations require updates to align with recent EU directives and technological advancements in energy efficiency.

- **Albanian legislation must comply with the EU directive:**

Especially with Technical Guidance for EPBD Implementation Task Force, *March 18th, 2024*

In principle, the EPBD follows the same energy definitions framework as utilized in directives like the Energy Efficiency Directive (EED) and Renewable Energy Directive (RED), with the shared objective of reducing total primary energy consumption and encouraging the use of renewable energy sources. However, applying the EPBD in the context of buildings presents challenges, particularly regarding the utilization of freely available on-site ambient energy for technologies such as heat pumps and solar panels. This raises the importance of adhering to the efficiency-first principle outlined in the EPBD, which prioritizes reducing energy consumption before utilizing renewable energy sources.

The application of this principle in energy calculations and the establishment of relevant primary energy indicators necessitates a thorough examination of the EPBD assessment boundary and key definitions, while also considering the principle's implications for accounting for the positive effects of renewable energy. For instance, determining whether on-site PV energy should be considered as delivered energy, and whether ambient energy should be included or excluded in the total primary energy indicator, requires careful analysis. Similarly, accounting for self-used and exported PV electricity when calculating total or non-renewable primary energy indicators is crucial.

Furthermore, while the EPBD introduces new requirements to cover ZEB total primary energy with renewable or carbon-free energy, as well as district heating/cooling, the calculation of these requirements warrants examination.

Additionally, while the primary energy indicator is supplemented with an operational CO2 indicator, it is essential to note that the energy calculation remains fundamentally the same; only different factors are applied to calculate primary energy and operational CO2 emissions from delivered energy values. The introduction of the operational CO2 indicator serves as a new metric to be used alongside the total primary energy indicator for ZEBs, while other minimum requirements and the EPC rating scale will continue to be based on primary energy considerations.

The Albanian legal framework for energy efficiency in buildings faces several critical challenges, including:
- Limited enforcement capacity of the National Agency of Natural Resources (AKBN)
- Lack of regular energy audits in public and private sectors
- Absence of binding targets or penalties for non-compliance
- Weak financial incentives or subsidies for energy retrofitting
- Low awareness among building stakeholders

3. Development of a Tailored Energy Efficiency Framework

3.1 The proposed framework

- Introduction of building energy performance certificates (EPCs) for all new constructions and major renovations
- Establishment of a centralized database for energy audits and EPCs
- Tax deductions for investments in thermal insulation, high-efficiency HVAC systems, and renewable technologies
- Simplified permitting for energy-efficient building designs'
- Structured Framework to Enhance Energy Efficiency Policies for Buildings
-Elevate energy efficiency in the Albanian building sector, a structured framework should consist of the following pillars:

3.2 Legislative and Institutional Strengthening

- Update and consolidate existing laws (e.g., Law No. 116/2016 and Law No. 124/2015) to reflect the latest EU directives (e.g., EPBD 2024/1275).
- Ensure complete transposition of the EPBD and EED directives into national law.
- Establish a dedicated National Building Energy Efficiency Authority (NBEEA) to coordinate implementation, monitoring, and enforcement.
- Technical Standards and Building Codes
- Introduce mandatory Minimum Energy Performance Standards (MEPS) for all building types.
- Revise and enforce the national building code to require energy-efficient design, materials, and technologies in new construction and major renovations.
- Develop a roadmap for Zero-Emission Buildings (ZEBs) by 2030.
- c) Data, Monitoring, and Reporting Infrastructure
- Create a centralized Building Energy Database to track building performance, certification status, and energy consumption.
- Require periodic energy audits and energy performance reports for both public and large private buildings.
- Recommended Policy Measures to Promote Energy-Efficient Practices

- To stimulate the adoption of energy-efficient measures in buildings, the following policy instruments are recommended:
- Financial Incentives
- Grants and subsidies for energy retrofits, particularly for low-income households and SMEs.
- Soft loans through public-private partnerships and international financial institutions for large-scale renovation projects.
- Energy Performance Contracts (EPCs) allow third-party financing of improvements.
- b) Tax and Fiscal Benefits
- Tax deductions or credits for property owners undertaking certified energy efficiency upgrades.
- VAT reduction or exemption for energy-efficient construction materials and appliances.
- Accelerated depreciation for energy efficiency investments in commercial properties.
- Market-Based Instruments
- Develop a white certificate system (energy savings certificates) to reward obligated parties for documented energy savings.
- Encourage Green Public Procurement (GPP) requiring energy efficiency criteria in all public building projects.
- d) Awareness and Capacity Building
- Launch national campaigns on the benefits of energy efficiency.
- Develop certification programs for energy auditors, designers, and installers.
- Partner with universities and training centres for continuous professional education.
- Compliance Mechanisms: Certification & Monitoring
- Energy Performance Certification (EPC)
- Make EPCs mandatory for all new buildings and buildings undergoing sale or rent.
- Establish independent bodies for issuing, validating, and auditing certifications.
- Develop a digital platform for EPC issuance and tracking.
- b) Inspections and Audits
- Mandate regular inspections of heating and air-conditioning systems to ensure ongoing efficiency.
- Introduce randomized audits and public disclosure of non-compliance for accountability.
- Penalties and Incentives
- Implement fines for non-compliance with EPC and MEPS requirements.
- Offer performance-based bonuses or recognition schemes for compliant and exemplary buildings (e.g., national “Green Building Label”).

4. Alignment with Legal and Regulatory Requirements

4.1 Legal Amendments:

It is recommended to introduce specific updates and amendments to existing laws and regulations to better reflect the objectives of improving energy efficiency in the building and energy sectors. These changes will help close current gaps and create a coherent legal basis that supports sustainable energy use and compliance with EU directives.

To ensure effective implementation, the following legal amendments are proposed:

-Amend Law No. 116/2016 "On the Energy Performance of Buildings
- Update Law No. 124/2015 to introduce binding minimum energy performance standards (MEPS)
- Amend building code regulations to include NZEB (Nearly Zero Energy Building) targets
- Introduce performance-based compliance schemes (e.g., mandatory reporting and third-party verification)
- Establish a National Energy Efficiency Monitoring Unit within AKBN

This section focuses on ensuring that Albania's legal and regulatory framework for energy efficiency is fully aligned with national goals and international best practices.

4.2 Compliance Mechanisms:

To enforce energy efficiency provisions effectively, the design and implementation of clear compliance mechanisms are essential. This includes establishing systematic reporting requirements and independent auditing systems that provide transparency, accountability, and ensure adherence to regulations.

4.3 Monitoring and Evaluation Tools

Developing robust tools for monitoring and evaluating the impact of policy changes is crucial. These tools will allow stakeholders to measure progress, identify challenges early, and make data-driven decisions to continuously improve the effectiveness of energy efficiency measures over time.

5. Promotion of Best Practices and Energy Efficiency Culture

5.1 Strengthening the energy efficiency culture in Albania:

- Launch public awareness campaigns on energy-saving benefits and legal obligations
- Conduct training programs for architects, engineers, and municipal staff
- Promote demonstration projects in public buildings (e.g., schools and hospitals)
- Integrate energy efficiency education into vocational and university curricula
- Partner with EU institutions to access technical and financial assistance

5.2 Integration with globally recognized standards

It is recommended to encourage the integration of globally recognized standards and technologies that enhance building energy performance, helping align Albania with modern, sustainable construction trends. To support this, targeted awareness campaigns and capacity-building initiatives should be developed to educate and empower stakeholders—including policymakers, builders, and consumers—promoting a widespread culture of energy efficiency.

5.3 Policy measures

All policy measures must be designed to reinforce Albania's long-term sustainability goals and comply with the country's commitments toward European Union accession, ensuring that energy efficiency improvements contribute to broader economic and environmental objectives.

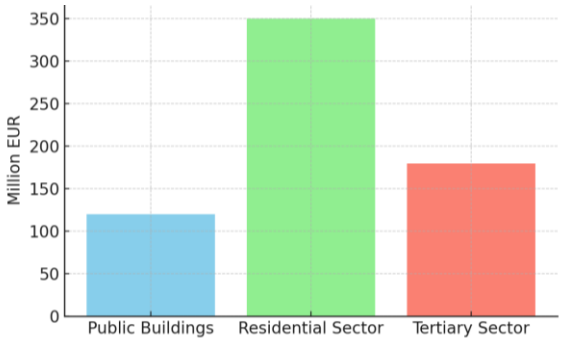

Figure 2: Investment Needs for Energy Efficiency Retrofits

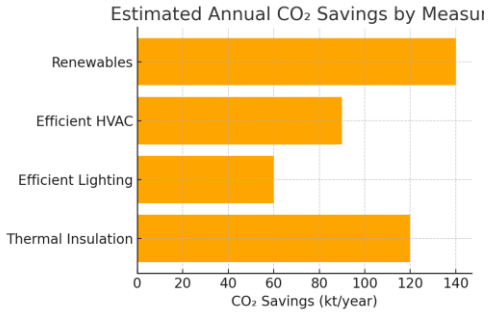

Figure 3: Annual CO_2 Savings by Energy Efficiency Measure

Comparison of Albania and EU Energy Efficiency Metrics

Policy Area	Albania (%)	EU Average (%)	Gap
EPC Coverage	40	85	45
Standards Compliance	30	90	60
Incentives Implementation	25	75	50