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CENTRAL & EASTERN EUROPEAN SUSTAINABLE ENERGY NETWORK · CEESEN-BENDER

CEESEN-BENDER

Building intErventions in vulNerable Districts against Energy poveRty

Deliverable 3.1

Report on building renovation barriers in regulatory framework in Estonia

Dissemination Level: Public

WP3 Tackling the barriers hindering building related interventions in vulnerable districts

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1. Background of the CEESEN-BENDER project

The main goal of "Building intErventions in vulNerable Districts against Energy poveRty" (i.e. CEESEN-BENDER) project, launched on September 1, 2023, is to empower and support vulnerable homeowners and renters living in Soviet-era multi apartment buildings in 5 CEE countries: Croatia, Slovenia, Estonia, Poland, and Romania. The project will help them through the renovation process by identifying the main obstacles and creating trustworthy support services that include homeowners, their associations, and building managers.

Coordinated by Society for Sustainable Development Design (DOOR), the CEESEN-BENDER project brings together leading European researchers and experts in the field from six countries: Croatia (Society for Sustainable Development Design / DOOR, Medjimurje Energy Agency Ltd. / MENEA, EUROLAND Ltd. / Euroland, GP STANORAD Ltd. / GP STANORAD), Estonia (University of Tartu / UTARTU, Tartu Regional Energy Agency / TREA, The Estonian Union of Co-operative Housing Associations / EKYL), Slovenia (Local Energy Agency Spodnje Podravje / LEASP), Romania (Alba Local Energy Agency / ALEA, Municipality of Alba Iulia / ALBA IULIA), Poland (Mazovian Energy Agency / MAE, Housing Cooperative "Marysin Wawerski" / SM Marysin Waw), Germany (Climate Alliance) in addition to Central Eastern European Sustainable Energy Network (CEESEN).

The CEESEN-BENDER project is carried out from September 2023 until August 2026 and has a total budget of €1,85 million, of which €1,75 million is funded from the European Union's Programme for the Environment and Climate Action (LIFE 2021-2027) under grant agreement n° LIFE 101120994. The project is being carried out by internationally recognized researchers and partners from Society for Sustainable Development Design, University of Tartu, Local Energy Agency Spodnje Podravje, Alba Local Energy Agency, Climate Alliance, Medjimurje Energy Agency Ltd., Mazovian Energy Agency, Tartu Regional Energy Agency, Municipality of Alba Iulia, Central Eastern European Sustainable Energy Network. In addition, associated partners of the project include Housing Cooperative "Marysin Wawerski", EUROLAND Ltd., GP STANORAD Ltd. and The Estonian Union of Co-operative Housing Associations.

2. Relevance of this deliverable

This policy brief summarises the results of the analysis of relevant national regulations regarding the building renovations related to the energy poor households in Estonia. This analysis of Estonian regulatory and policy frameworks regarding the renovation of multiapartment buildings (MAB) is a crucial step among many needed to enhance energy efficiency of Estonia's building stock and alleviate energy poverty in the country. By critically studying the content and achievements of national policies and regulatory measures, this analysis provides insights into how Estonia can better align with broader EU goals and enhance its contribution to reducing energy consumption and greenhouse gas emissions in the residential building sector. Given that a significant portion of the residential sector in Estonia is made up of MABs, improving their energy performance is essential in contributing to the achievement of EU energy efficiency targets. This policy brief aims to highlight the successes and shortcomings of existing policies and regulations, offering guidance for future legislative, policy and financial efforts to ensure renovations in Estonia are both widespread and impactful.

Considerations stemming from such evidence-based recommendations are vital for addressing the specific challenges of energy renovations and energy poverty in Estonia. The findings of the analysis were the basis of specific policy recommendations for policy actors and relevant decision-makers in Estonia to improve future programs, policies, and legislation, ensuring efficient and targeted resource allocation and priority setting. Moreover, while improving energy performance in MABs can reduce overall energy consumption and emissions, it also significantly enhances living conditions for a large segment of the population. Addressing energy poverty in these buildings supports social equity in the country and improves the quality of life for vulnerable households, contributing to Estonia's social and economic resilience.

CEESEN-BENDER partners identified the following barriers to energy renovations of MABs and the consequential energy poverty alleviation in MABs in Estonia.

Summary of **REGULATORY AND POLICY BARRIERS:**

- Energy efficiency requirements set needs for technical requirements and solutions that are costly to meet, possibly making it difficult to start and implement the renovation to achieve energy savings.
- Local governments have no designated role as outlined in the Local Government Organisation Act or budget for implementing local-level measures to help MABs renovation.
- Absence of clear, targeted strategies or specific measures to address energy poverty in multi-apartment buildings (MABs) beyond the existing social welfare measures.
- Reliance on the subsistence benefit mechanism, which may not fully capture all individuals suffering from energy poverty or at risk of energy poverty.

Summary of **BARRIERS RELATED TO PUBLIC CALLS FOR ENERGY RENOVATIONS OF MABS:**

- Absence of publicly available reports on the results of energy renovation measures, monitoring overall renovation effect such as energy and CO2 savings
- Insufficient funding for the renovation targets, with only 330 (2022-2027) million euros allocated against an estimated need of over 1.6 billion euros (until 2030).
- Renovation processes has been predominantly occurred in bigger towns, leaving rural and lower-income areas underserved.
- Lack of mention or focus on wider social dialogue and public participation in the long-term renovation strategy and technical documents.
- The concept of citizen energy initiatives is not addressed, which could hinder community engagement and equitable access to energy renovations.

Based on these barriers, CEESEN-BENDER partners identified the following **policy recommendations** for greater energy renovations and energy poverty alleviation in MABs in Estonia:

1. Conduct a comprehensive assessment of the cost-effectiveness of existing renovation measures by analyzing financial costs, energy savings, and reductions in CO2 emissions.
2. Ensure the continuous monitoring and transparency of renovation outcomes (cost-effectiveness, energy savings, and CO2 reductions) to assess the achievement of the trajectories outlined in the Long-Term Renovation Strategy (LTRS).
3. Investigate potential opportunities to implement measures aimed at alleviating energy poverty in multi-apartment buildings (MABs) to ensure that no one is left behind in the renovation process.

3. Introduction

Globally, buildings account for a significant portion of energy consumption and greenhouse gas (GHG) emissions, making their renovation a critical component in the transition to a low-carbon economy. According to the Intergovernmental Panel on Climate Change, in 2019, the building sector accounted for 12 GtCO2-eq of greenhouse gas emissions, representing 21% of global emissions. These emissions comprised 57% from indirect CO2 sources like electricity generation, 24% from direct on-site CO2 emissions, and 18% from cement and steel production for building construction. Considering only CO2 emissions, buildings contributed 31% globally. Energy use in buildings, with residential and non-residential sectors contributing 70% and 32% respectively to global final energy demand, highlighted a significant increase in global CO2 emissions and energy demand from 1990 to 2019, particularly in electricity, which rose by 161%.[1]

In the context of GHG emissions reduction, the EU has set binding targets under the Climate Target Plan 2030 and the Fit for 55 package. The aim is to reduce GHG emissions by at least 55% by 2030 compared to 1990 levels. Buildings are responsible for approximately 40% of the EU's energy consumption and 36% of its GHG emissions, and according to 2020 data, a staggering 75% of the total housing stock, of which over a third (35%) was built before 1970, is classified as energy inefficient.[2] Thus, energy renovations[3] of multi apartment buildings (MABs) are central to achieving the EU's energy efficiency targets, addressing energy poverty, and contributing to the broader climate change mitigation and adaptation efforts. Official EU strategies and documents, such as the Renovation Wave strategy, the Climate Target Plan, and the Fit for 55 package, outline the pathways and targets for building renovations and their role in the EU's climate and energy policies.

Renovating existing buildings could reduce overall energy consumption in the EU by 5-6% and lead to a decrease in carbon dioxide emissions by approximately 5%. Despite

[1] IPCC, Chapter 9: Buildings, accessed 10.07.2024, https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-9/

[2] *European Commission – Department: Energy – In focus*, accessed 10.7.2024., https://commission.europa.eu/document/download/65660913-cecb-4f2f-b34c-c9bbf9bed1af_en?filename=in_focus_energy_efficiency_in_buildings_en.pdf

[3] Energy renovation of a building involves various technical operations and processes aimed at enhancing the building's energy efficiency. This includes conducting an energy audit and obtaining an energy certificate, creating project documentation to demonstrate energy savings, improving thermal insulation of external parts like walls and roofs, and replacing external joinery. It also involves upgrading technical systems, such as heating, cooling, ventilation, air conditioning, hot water preparation, and lighting systems. Additionally, the process may include integrating renewable energy sources, such as solar panels and heat pumps.

this potential, the average annual renovation rate of the EU building stock is less than 1%, with member states' renovation rates ranging from 0.4% to 1.2%. Furthermore, households or the residential sector accounted for 27% of final energy consumption in the EU in 2021, which is 18.6% of the EU's gross inland energy consumption. The EU's Renovation Wave strategy, part of the European Green Deal, aims to at least double the annual energy renovation rate of residential and non-residential buildings by 2030. This initiative targets the renovation of 35 million buildings over the next decade, with a particular focus on improving the energy performance of MABs where energy poverty is often pronounced. Energy poverty affects millions of EU citizens, leading to inadequate heating, cooling, and overall poor living conditions. Countries of Central and Eastern Europe (CEE) face unique challenges in this regard, including older building stock, lower energy performance, and higher rates of energy poverty.

Based on Estonian Long-term strategy for building reconstruction 14000 out of 22600 multi apartment buildings[4] (MABs) built before 2000 need renovation. Nearly 70% of occupied dwellings are located in Multi-Apartment Buildings (MABs), with 69% of these buildings situated across three counties that also host Estonia's three largest cities: Tallinn, Tartu, and Narva. Most MABs were constructed between 1960 and 1990 and have not undergone renovations since then, with approximately 3,000 MABs having been updated. As a result, many of MABs are inefficient by today's standards. Of all Multi-Apartment Buildings, only 27% possess an energy label, but only 7% of all MABs have energy labels in the A to C range, as only buildings with a C-class energy label or higher are considered energy efficient.

4. Methodology

The purpose of this policy brief is to provide evidence-based guidelines that support a more targeted and widescale energy renovations of MABs in the national context while simultaneously addressing issues of energy poverty of households. This is to be achieved through greater understanding of existing regulatory and policy barriers concerning these overarching goals. Evidence-based policy recommendations based on such an analysis can aid decision makers in future improvement of regulatory frameworks and to support building related interventions in vulnerable districts. Thus, **the aim of this analysis is to identify and analyse relevant national regulations regarding the building renovations related to the energy poor households in pilot countries**. This policy brief will aid in the assessment of such barriers in the wider context of the CEESEN-BENDER project, on the national level, and in the context of CEE countries through a synthesized CEE report by providing a comparative outlook between pilot countries.

To understand said regulatory and policy barriers the CEESEN-BENDER project partners identified publicly available national documents (strategies, policies, laws, statues of cooperatives, etc.) which are most relevant for defining the existing policy and regulatory framework of energy renovations of MABs and energy poverty alleviation in MABs within their country. Also, previous public calls related to energy renovations of MABs in each country were also identified, along with the conditions, results, and other key aspects of these public calls contained in separate documentation that was publicly available. The content of these documents was analysed by the project partners through three separate research instruments developed and shared by the TL, along with the instructions on how to utilize said instruments for data collection.

[4] A residential or dormitory building with three or more apartments. Estonian Building Code, act Minimum requirements for energy performance (RTI, 13.12.2018, 14)

Concerning the policy and regulatory framework analysis, two instruments were developed, while one instrument was developed exclusively for the purpose of collecting data referring to the aforementioned public calls for renovations of MABs.

The first out of the two instruments regarding policy and regulatory barriers included a total of 27 questions. Specifically, it contained 14 close-ended questions with predetermined multiple-choice answers defined by the TL, and 13 open-ended questions where the researcher had to provide a list in the form of bullet-points or had to input a specific numeric or qualitative value. The questions were structured into the following four segments: General information; Energy renovations of MABs; Energy poverty in MABs; Citizen's energy in MABs. This instrument, collecting more basic and descriptive information was supplemented with an instrument containing a total of ten questions and additional sub question grouped into three distinct segments of said barriers and which can most broadly be defined as: Targets; Measures; and Implementation & Monitoring. This second phase of the analysis has been conducted by collecting data in the form of written answers to questions provided by the TL and represented broader reflections on the findings in the first phase and their synthesis with previous understandings and experience of the researcher regarding the energy renovation of MABs and energy poverty alleviation in MABs. This resulted in qualitative data grouped into topics relevant for identifying legislative and policy barriers on a national level.

5. Regulatory and policy barriers to energy renovations of MABs in Estonia

This policy and regulatory framework analysis covered a total of six official publicly available documents that were deemed by experts as more or less relevant for defining the current national regulatory and policy framework for energy renovations of MABs in Estonia and energy poverty alleviation in MABs in Estonia. Some general information gathered within this first step of the analysis sheds light on the recency of these legislations and policies, as well as their status, overall summations of their primary and secondary subject areas, and key stakeholders of the policy or regulation which are explicitly mentioned within the document itself or indirectly referred to. Table 1. brings an overview of these documents with the previously mentioned general information and a hyperlink to each of the analysed documents. This data collection was conducted in the period from February 6th until April 15th, 2024. The research instruments can be found in annex 1, annex 2, and annex 3, respectively.

Table 1. **General information** on the analysed documents outlining Estonia's regulatory and policy framework for energy renovations of MABs.

Legislation/policy	Year of publication	Subject area (Primary & Secondary)	Source	Version	Key stakeholders
Electricity Market Act	2024	Energy	link	Final	Energy market actors
Energy Sector Organisation Act	2023	Energy, Energy communities & Energy poverty	link	Final	Energy market actors
Social Welfare Act	2024	Social	link	Final	Citizens
Building Code (incl. Minimum building energy efficiency	2024	Buildings	link	Final	Construction workers: Person authorized for

requirements; Requirements for issuing an energy label and an energy label; Methodology for calculating the building's energy efficiency)					energy certification; Building owners; Investors
Local Government Organisation Act	2023	Local government responsibilities	link	Final	Local authorities
Long-term strategy for building reconstruction	2020	Buildings	link(pdf)	Final	Construction sector; Users of residential and non-residential buildings

In Table 2. The collected data is displayed concerning various aspects of energy renovations of MABs regarding the analysed legislative and strategic framework. Specifically, the results bring an overview of defined quantitative targets, renovation measures and financial sources for the implementation of such measures defined in the analysed documents. Additionally, the analysis ascribed a self-assessed ranking of relevance concerning each reviewed document so that the displayed results could be put into a wider legislative and policy context and their (lack of) legislative or policy impact on that specific aspect evaluated accordingly. The table brings a summation of identified targets in their corresponding units, measures to achieve those goals, financial resources needed to achieve them and sources of such financing. The assessed documents assessed with (current) low impact to the energy renovations are excluded from Table 2.

Table 2. Overview of quantitative targets, measures, financial scope, and sources of financing of measures concerning **energy renovation of MABs in Estonia** within the analysed documents.

Legislation/ policy	Targets (unit)	Measures	Financial scope (Billion EUR)	Financial source	Impact
Long-term strategy for building reconstruction (MABs sections)	*14000 (MABs, renovated) *18 (M m2 of MABs, renovated)	renovation of MABs	*need 5,4 (2021-2050) *need 1,6 (2021-2030) *grant need 0,65 (2020-2030)	Own contribution (with bank loans), EU funds+state budget (grant)	2,2 TWh/yr energy cons. reduction 1,06 MtCO2 reuction

All the identified policy and legislation were also analysed regarding measures, financial scope and sources of financing for energy poverty alleviation in MABs. Table 3. displays the collected data regarding these aspects. Again, the documents with self-assessed low relevance on the energy alleviation in MABs are excluded from Table 3.

Table 3. Overview of measures, financial scope and sources of financing of measures concerning **energy poverty alleviation in MABs in Estonia** within the analysed documents.

Legislation/policy	Measures	Financial scope (EUR)	Financial source	Impact
Energy Sector Organisation Act	No	No	No	High
Social Welfare Act	No	No	No	High

The last segment within this analysis phase refers to citizens' energy in MABs. When looking at only those policies and legislation that reference establishing a citizen energy initiative in any form (e.g. energy communities or RES communities), only two documents analysed mention such initiatives in the context of MABs. Table 4. Identifies these documents as well as the types of citizen energy initiatives mentioned.

Table 4. Overview of collected data on the type of **citizen-led energy initiatives in the context of MABs** referenced in the analysed documents.

Legislation/policy	Types of citizen-led energy initiatives referenced	Impact
Electricity Market Act	Energy communities	High
Energy Sector Organisation Act	Renewable energy communities	High

The three following subsections represent the findings of the second phase of the analysis. Given the nature of the collected data, these findings are structured in a way that they narratively address the three predefined and presupposed areas of challenges concerning legislative and policy frameworks in the field of energy renovations of MABs and energy poverty alleviation in MABs on a national level. These sections also provide summaries and key takeaways of these broader reflections which highlight positive aspects as well as opportunities for improving the existing legislative and policy framework in Estonia regarding energy renovations of MABs and energy poverty alleviation in MABs.

5.1. Targets

The Long-Term Renovation Strategy (LTRS) has great ambition – renovating 100,000 detached houses and 14,000 apartment buildings by 2050. There are grant schemes starting up with a renovation marathon, as well as implementing novel approaches such as fabric renovation (renovation with prefabricated wall panels). The known grant budget helps only a fraction of MABs. Renovating or increasing energy efficiency while improving indoor climate quality is very important, but with the current grant budget and the capacity of residents, it is very challenging to reach the goal set by the LTRS with deep renovation. Cost-saving effectiveness is in question, for example, deep renovation versus investing in tech systems and monitoring and controlling.

In LTRS target is until 2050, but measures and funds are until maximum 2030, but volumes of renovation needs are as good as they can be as well as the calculation of residential buildings to be left (internal migration and overall population decline). Budget component is an issue, starting from the overall cost needed to the credit capacity of residents (including loan collateral – real estate price in low real estate value areas).

On a declarative level, there is coherence in the targets for building renovation—such as CO2 emission reduction and energy savings—across the analyzed policies and legislation. The national construction grant, along with over ten years of related information efforts, has significantly raised public awareness of the need for renovation and its benefits. However, the average renovation pace has been around 100 MABs per year, whereas, to meet the Long-Term Renovation Strategy (LTRS) targets over the next 25 years, this figure needs to exceed 500 MABs annually. On the other hand, the emission reduction targets for the residential housing stock are likely to be met, largely thanks to local renewable energy sources (mostly solar) and the increasing share of

renewable energy in the electricity grid with reduction in grid emission factors. However, mitigating energy poverty (nobody is left behind principle) in process is not clear.

Summary and identified barriers

The first area of potential legislative and policy barriers refers to targets for energy renovations of MABs and energy poverty alleviation in MABs on a national level. In this sense it was important to determine whether the national targets are:

- Sufficiently **ambitious and prioritised** in the national planning for the energy transition;
- Based on **comprehensive data and appropriate methodologies** for the widescale baseline analysis and tracking of the national building stock and energy poverty on a national level;
- **Coherent** across the relevant legislation and policies **and compatible** with other targets relevant to the energy transition in the country.

Summary: The Long-Term Renovation Strategy (LTRS) in Estonia aims to renovate 100,000 detached houses and 14,000 apartment buildings by 2050, using grant schemes and novel approaches such as fabric renovation. However, the current grant budget and resident capacity are insufficient to achieve these ambitious targets, making it challenging to reach the goals of deep renovation. The targets for energy building renovations of MABs are based on a solid analysis of the national building stock, including internal migration and overall population decline. However, there are significant budgetary issues, particularly concerning the actual costs needed and the credit capacity of residents. There is general coherency in the identified targets across relevant legislation and official documents for building renovation, focusing on CO2 emission reduction and energy savings. However, the approach to mitigating energy poverty, particularly ensuring that no one is left behind, is not clearly addressed.

Identified barriers regarding the TARGETS for energy renovations and energy poverty alleviation in MABs:

1. Insufficient grant budget and resident capacity to meet the ambitious targets set by the LTRS for energy renovations of MABs.

2. Cost-effectiveness concerns between deep renovation versus investing in technology systems and monitoring.

3. Limited credit capacity of residents, compounded by the low real estate prices in some areas affecting loan collateral.

4. Lack of clear measures for mitigating energy poverty during the renovation process.

5.2. Measures

In Estonia, the main—and essentially the only—measure for building renovation in the past has been the national reconstruction grant. Although there have been some smaller grants, such as those for upgrading heating systems, the reconstruction grant was launched in 2010 and has been continuously developed since then. The need for renovation, along with its process and benefits, has also been widely promoted. A lot of experience gained, and feedback from property owners, has been incorporated into later stages of the measure. For instance, certain ineffective technical solutions

have been prohibited, and the grant rate is now tied to property values to encourage renovation even outside major cities where real estate prices are lower. Additionally, investments in external infrastructure (e.g., bicycle storage, waste collection facilities) have been added to the list of supported activities, as well as requirements for upgrading electrical systems to ensure vital systems can be powered off-grid during emergencies.

Currently, the measure is well-known and primarily designed for apartment associations. The support system includes everything from partially grant-funded technical consultants to guidance materials. Technical solutions are typically developed by field experts (designers, researchers, auditors, etc.). The reconstruction grant has been redesigned based on feedback from the field, supported by relevant surveys and research reports

There are practically no local and regional level energy measures for renovation as this role is not set for local government by Local Government Organisation Act. Local level (municipality) does not have considerable measures (most of the considerable measures and centralized to state level), only very minor budget measures, e.g., create mobility opportunities and improve the living conditions of the disabled (mainly apartment level).

In renovation (energy renovation) documents and grants vulnerable groups are not actually covered with special measures. Main and practically only measure is played with Energy Sector Organisation Act and Social Welfare Act's subsistence benefit measure (it was existing measure). Energy poverty is defined in Energy Sector Organisation Act by using existing subsistence benefit mechanism (Social Welfare Act): Vulnerable energy consumer - persons living alone for the purposes of the Social Welfare Act or families whose monthly income per family member during the last six months does not exceed the minimum wage. Person suffering from energy poverty - person living alone for the purposes of the Social Welfare Act, or a family who has, at least once during the last six months, received a subsistence benefit and whose income per family member in the last month does not exceed the minimum wage.

Summary and identified barriers

The second segment of potential barriers refers to national measures for energy renovations of MABs and energy poverty alleviation in MABs. Regarding this topic we were interested in whether said measures are:

- **Suitable and comprehensive** enough given the specific national context, and, for that purpose, **created inclusively** as a result of social dialogues with key stakeholders;

- Sufficiently addressing the importance of energy renovations of MABs and energy poverty alleviation in MABs on a **local and/or regional level** in Estonia;

- **Recognizing vulnerable social groups** at all levels in Estonia and specifically addressing energy poverty in residential, multi-apartment buildings.

Summary: Technical acts set stringent requirements for construction and renovation, compiled by experts to ensure safety and indoor climate standards. The main measure for apartment buildings is the national reconstruction grant, which has been refined over time based on feedback from owners and designed with the input of apartment

associations and technical experts. There are practically no energy measures for renovation at the local and regional levels in the country. The local level (municipalities) lacks significant measures, with most measures being centralized at the state level. Only minor budget measures exist locally, focusing on creating mobility opportunities and improving living conditions for the disabled. The reviewed renovation documents and grants do not specifically address vulnerable social groups with dedicated measures. Energy poverty is defined using the existing subsistence benefit mechanism from the Social Welfare Act, targeting individuals or families with income below the minimum wage.

Identified barriers regarding the MEASURES for energy renovations and energy poverty alleviation in MABs:

1. Energy efficiency requirements set needs for technical requirements and solutions that are costly to meet, possibly making it difficult to start and implement the renovation to achieve energy savings.

2. Local governments have no designated role as outlined in the Local Government Organisation Act or budget for implementing local-level measures to help MABs renovation.

3. Absence of clear, targeted strategies or specific measures to address energy poverty in multi-apartment buildings (MABs) beyond the existing social welfare measures.

4. Reliance on the subsistence benefit mechanism, which may not fully capture all individuals suffering from energy poverty or at risk of energy poverty.

5.3. Implementation and monitoring

As per the analysed documents, the Ministry of Climate is the governing body overseeing the implementation and monitoring of the measures for energy renovations of MABs. However, the overall monitoring/results process is not publicly available, there are no public reports that year by year or call by call are monitoring results – energy savings, CO2 savings, energy label before and after or energy costs. Furthermore, the implementation and monitoring of energy building renovations of MABs and energy poverty alleviation are overseen by a national managing authority that uses EU funds, and it employs independent measure evaluation audits for assessment.

Based on Long-term renovation strategy, there is a need to renovate 14000 (18 M m2) apartment buildings by 2050 (including 2,28 M m2 between 2021-2025 and 3,2 M m2 between 2026-2030). Until 2030 the estimated cost of renovation is over 1,6 billion euros (considering inflation from strategy development to today will be higher – renovation cost is already doubled compared with 2020). Funds allocated for grants is 330 M€ and so far, the renovation process has happened mainly in bigger towns. It will be the challenge to renovate other areas with lower income households and lower real estate values without renovation grant (if even with renovation grant it is challenging). One issue that is not covered here are the costs or surprises during renovation often become apparent only during the renovation process when encountering structural issues. Presumably, one potential solution to this issue is more attention should be paid to long-term maintenance and operating costs in projects when making technical choices.

Summary and identified barriers

In the last segment we were interested in potential barriers in the process of implementing and monitoring the above-mentioned measures for energy renovations of MABs and energy poverty alleviation in MABs. This mainly refers to the assessment of:

- **Governing bodies** overseeing the implementation and monitoring of the measures and the **transparency and efficiency** of the implementation and monitoring processes;
- Available national **financial instruments and mechanisms** in your country and the perceived **gaps between the necessary and available public resources** for the implementation of measures;
- **Just transition and social inclusion** elements in the planning and implementation of measures and the role of **citizen energy initiatives** energy building renovations of MABs and energy poverty alleviation in MABs;

Summary: The Ministry of Climate oversees the implementation and monitoring of measures for energy renovations of MABs. However, the transparency and efficiency of these processes are hindered by the lack of publicly available monitoring reports detailing energy savings, CO2 savings, energy labels before and after, or energy costs. The implementation and monitoring of energy building renovations of MABs and energy poverty alleviation are overseen by a national managing authority that uses EU funds and employs independent measure evaluation audits for assessment. There is a significant gap between the perceived targets for renovating 14,000 apartment buildings by 2050 and the available resources, with estimated renovation costs exceeding 1.6 billion euros by 2030 while only 330 million euros are allocated for grants. This gap is particularly challenging for lower-income households and regions with lower real estate values. The analysed documents, including technical documents and the long-term renovation strategy, do not recognize or incorporate principles of just transition and social inclusion in the planning and implementation of measures for energy building renovations of MABs and energy poverty alleviation.

Identified barriers regarding the IMPLEMENTATION AND MONITORING processes for energy renovations and energy poverty alleviation in MABs:

1. Absence of publicly available reports on the results of energy renovation measures, monitoring overall renovation effect such as energy and CO2 savings

2. Insufficient funding for the renovation targets, with only 330 (2022-2027) million euros allocated against an estimated need of over 1.6 billion euros (until 2030).

3. Renovation processes has been predominantly occurred in bigger towns, leaving rural and lower-income areas underserved.

4. Lack of mention or focus on wider social dialogue and public participation in the long-term renovation strategy and technical documents.

5. The concept of citizen energy initiatives is not addressed, which could hinder community engagement and equitable access to energy renovations.

6. Barriers related to public calls to energy renovations of MABs in Estonia

There has been a substantial increase in funding for energy renovation grants from 2022 to 2027, compared to earlier periods. This has been accompanied by a rise in the number of applications and successful grants, indicating a growing interest and engagement in energy renovation projects. The grant amounts for the National reconstruction of multi-apartment buildings (MABs) are flexible and determined by technical requirements, whereas the factory reconstruction grants have a fixed upper limit. This flexibility allows for a more tailored approach to funding based on project needs. The eligibility and application processes are streamlined, requiring buildings to have a minimum of three apartments and a majority consensus (51%) from residents to proceed with the application. This collective approach ensures broad support and minimizes conflicts during project execution. The renovation activities covered under these grants are extensive, including insulation, system upgrades, and renewable energy installations. The co-financing rates, which vary between 30% and 50%, make it feasible for many apartment associations to undertake these projects, ensuring significant energy performance improvements and sustainability. The programs mandate upgrading to a C-energy label for significant energy savings, and they actively promote the installation of renewable energy systems such as photovoltaics. This aligns with national and EU energy efficiency goals, leading to lower energy consumption and a reduced carbon footprint. Energy-poor households are included in these programs only if their building applies for grants collectively, which may pose barriers to direct participation. The lack of specific criteria for identifying energy-poor households and the absence of financial tracking make it difficult to ensure that assistance reaches the intended beneficiaries effectively.

1. **Complex eligibility criteria**

Only buildings classified as multi-apartment buildings (MAB) with three or more apartments are eligible. This excludes smaller buildings or those with mixed uses. Also, the need for 51% of apartment owners to agree on renovation projects can be difficult to achieve, leading to delays or the inability to apply for grants.

2. **Adaptation to digitization**

While electronic submissions streamline processes, not all applicants may have the necessary digital literacy or access to technology to complete the application effectively.

3. **Inadequate support for vulnerable groups**

Programs are not sufficiently focused on the specific needs of energy-poor households, who may struggle to meet eligibility requirements or gather the necessary support for collective applications. Energy-poor households can only benefit from grants if their building applies collectively, which may not always be feasible. There may be a lack of targeted outreach and support to help energy-poor households navigate the application process, leading to underrepresentation in grant programs. The absence of clear criteria for identifying energy-poor households makes it challenging to ensure that the most in-need individuals receive support.

4. **Financial constraints and co-financing challenges**

Even with grants covering 30-50% of renovation costs, the remaining expenses can be too high for some associations, deterring them from applying. Variability in economic conditions across different regions means that some areas may struggle more than others to meet co-financing requirements. Therefore, some applicants may have difficulty securing loans or additional funding to cover their share of the renovation costs, further limiting their ability to participate.

5. **Insufficient incentives for renewable energy integration**

The upfront costs for renewable energy systems like photovoltaic panels can be high, even with co-financing rates. The technical requirements and complexity of installing renewable energy systems can be a barrier, particularly for apartment associations lacking expertise in these areas. The co-financing rates for renewable energy systems, varying between 30% and 50%, may not be enough to make these systems affordable for all applicants.

6.1. Efficiency of public calls

Table 5 presents the efficiency and effectiveness of national grants for energy renovation of MABs in Estonia.

Table 5. Efficiency and effectiveness of public calls in Estonia

Public Call	The total value (available financial resources)	The highest and lowest amounts of grants that can be awarded to an individual project	Number of applied projects that have been approved	Number of projects applied to the Call
National reconstruction grant of MABs (2010-2024…) National grant for factory reconstruction of MABs (2020-2021)	330.000.000,00 EUR (2022-2027) In 2020 – 2021 17.000.000,00 EUR	Not set in National reconstruction grant of MABs (lowest amount comes based on technical requirements that are quite high) The National grant for factory reconstruction of MABs is up to 1.000.000,00 EUR (lowest amount not set)	There were 212 applications in 2023. In the period 2020 – 2021, there were 37 applications.	There were 161 approved in 2023. 1.114 apartment associations were granted until 2019.

The funding for reconstruction grants has seen a substantial increase for the period 2022-2027 compared to the earlier period. There is a notable rise in the number of applications in recent years, which corresponds with the increased funding and possibly more awareness or need for energy renovation. While the reconstruction grants for multi-apartment buildings have flexible grant amounts driven by technical requirements, the factory reconstruction grants have a set upper limit. For the National grant for factory reconstruction of MABs, the maximum grant per project is 1,000,000 EUR, with no specified minimum amount. For the National reconstruction grant of MABs, there is no specified highest or lowest amount for individual projects, with the lowest amount determined by high technical requirements. The high number of approvals in 2023 (161 out of 212) shows a substantial increase in interest and successful grants in recent years indicating growing engagement with the grant programs. These trends highlight the enhanced support and engagement in energy renovation projects, aligning with broader sustainability and energy efficiency goals in Estonia.

6.2 Application processes and eligibility criteria

Table 6 presents a comparison of the requirements of national grants in Estonia regarding the eligibility, ways of submitting the project, deadlines of revision, resolving the complaint, and signing the agreement.

Table 6. Comparison of application processes and eligibility criteria

Criteria	Details
Criteria for Multi-Apartment Buildings	MAB is building with 3 or more apartments which main purpose of use in the building registry is MAB
Eligible Applicants	Apartment associations
Percentage of Interested Co-Owners Required	51% of apartments/space
Manner of Application Submission	Electronically
Duration of Application Revision Process	3 months
Duration for Resolving Complaints and Signing the Agreement	30 days for complaints 1 year for signing the agreement

The program specifies that eligible buildings must have 3 or more apartments, with their primary use registered as multi-apartment buildings (MAB) in the building registry. This clear definition helps streamline the application process, ensuring that only appropriate buildings are considered. Only apartment associations are eligible to apply for the grants. This requirement means that individual apartment owners cannot apply on their own; they must organize as a collective group. This organization helps ensure that projects are managed systematically and that the interests of the majority of residents are represented. The program mandates that at least 51% of the apartment owners or space in the building must be in favor of the renovation project for an application to be considered. This requirement ensures that a majority of residents support the project, which helps in ensuring that most of the building's residents agree on the need for renovation, fostering a sense of collective responsibility and commitment. By securing majority support, the likelihood of conflicts or objections during or after the renovation process is minimized. Projects are more likely to proceed smoothly when there is broad support, as there will be fewer disagreements and more collaborative effort among residents. The requirement to submit applications electronically modernizes the process, providing several benefits like applicants can submit their documents from anywhere, reducing the need for physical presence and paperwork and submission processing time is quicker, as applications can be reviewed more quickly and efficiently. Applicants can easily track the status of their submission, ensuring transparency and reducing uncertainty. Electronic systems can reduce the likelihood of errors in submission and processing, as automated checks can be implemented. The program outlines clear timeframes for various stages of the application and approval process, ensuring predictability and organization. The revision process for applications takes

approximately 3 months, allowing sufficient time for thorough evaluation while providing applicants with a clear expectation of when they will receive feedback. Any complaints related to the application process are to be resolved within 30 days. This quick resolution time helps maintain trust and satisfaction among applicants. Once any complaints are resolved, there is a period of up to 1 year to sign the agreement. This extended timeframe allows for detailed discussions and finalizations, ensuring that all parties are satisfied with the terms before committing. Having a structured timeline helps applicants plan their projects better, knowing when to expect decisions and when to move forward with their renovation plans. It also instills confidence in the program's reliability and efficiency.

6.3 Renovation activities and co-financing rates

Table 7 presents data on various aspects of these grants, including the acceptable project activities, co-financing rates, the number of square meters included, obligatory energy savings, and included renewable energy sources (RES).

Table 7. Renovation activities

Acceptable project activities	• Insulate and reconstruct the façade, basement and foundation • Reconstruct or replace balconies and loggias • Insulate and reconstruct roof and ceiling • Replace or renovate windows, exterior, and fire doors • Upgrade the heating system and unit • Install or upgrade water and sewer systems • Install or upgrade ventilation and heat recovery systems • Install or integrate cooling system • Install renewable energy equipment • Upgrade or replace lift and control systems • Upgrade electrical systems • Insulate public areas and restore interiors post-construction • Ensure building access, install handrails, lifts, and meet standards • Connect to district heating network • Construct or upgrade waste and bicycle facilities Install safety and fire security equipment • Hire technical consultant

	• Perform owner's supervision
The minimum and maximum rates of co-financing measures for the same activities.	30-50% (based on location)
Number in square meters in total that were included in the call / program	In 2019 2,69 million m2
Obligatory annual minimum energy savings for heating compared to the condition before renovation.	should be upgraded to a C-energy label
Obligatory annual primary energy savings compared to the situation before the renovation.	should be upgraded to a C-energy label
Included RES in the Call / Program	Photovoltaics (PV)
RES co-financing rate	30-50%

The program offers a co-financing rate of 30-50% for renovation activities. This means that the program covers a significant portion of the renovation costs, making it more feasible for apartment associations to undertake these projects. The variable rate depending on the location allows for flexibility and tailored financial support, ensuring that areas with different economic conditions can benefit appropriately. In 2019, a total of 269 million square meters of building area were included in the renovation program. This large scale demonstrates the extensive reach and potential impact of the program. Such a vast scope implies a substantial number of buildings and residents benefit from improved energy efficiency and living conditions. The mandatory upgrade to a C-energy label for both annual minimum energy savings for heating and primary energy savings sets a high standard for energy efficiency. This requirement ensures that all renovated buildings achieve significant energy performance improvements, leading to lower energy consumption and costs for residents. Meeting the C-energy label standard contributes to national and EU-wide energy efficiency and sustainability goals. The program's inclusion of photovoltaic (PV) systems indicates a strong emphasis on incorporating renewable energy sources into building renovations. With a co-financing rate of 30-50% for renewable energy systems, the program incentivizes the adoption of sustainable energy solutions, reducing reliance on fossil fuels and lowering carbon emissions. This support aligns with broader environmental objectives and promotes the long-term sustainability of the renovated buildings. Residents benefit from improved building structures, safer living environments, and modernized facilities. Energy-efficient buildings lead to reduced energy consumption, translating to lower utility bills for residents. The adoption of renewable energy systems and meeting high energy efficiency standards contribute to reducing the overall carbon footprint. Renovated buildings with modern amenities and improved energy performance can see an increase in property value. Large-scale renovation projects can create job opportunities and stimulate local economies through the demand for construction and technical services.

6.4 Energy poverty

Energy-poor households are included in the National reconstruction grant of MABs if their building applied for the grant. This implies a collective approach where the application is made by the building as a whole rather than individual households. This approach suggests that energy-poor households might not have direct access to apply for the grants individually but can benefit if their building management or collective

housing unit applies for the program. It indicates a potential barrier for direct participation by energy-poor households, relying instead on collective action. There is no specific information on the criteria for defining or identifying energy-poor households in the context of these grant programs. The lack of clearly defined criteria can lead to challenges in targeting the appropriate households for assistance, potentially resulting in some eligible households being excluded. This absence of clear criteria might indicate a gap in the program's design, which could hinder effective allocation of resources to those in need. It points to the necessity for more precise definitions and guidelines to ensure that the support reaches the intended beneficiaries. There is no information provided on the total amount of grants utilized by energy-poor households. This lack of financial tracking specific to energy-poor households makes it difficult to assess the effectiveness and impact of the grant programs on this particular demographic. The absence of this data might suggest insufficient monitoring and evaluation mechanisms within the programs. It indicates a need for improved data collection and transparency regarding the financial support extended to energy-poor households. Developing a clear and standardized definition of what constitutes an energy-poor household is essential. This will help in accurately targeting the households that need the most assistance and ensure fair and efficient allocation of resources. Allowing direct applications from energy-poor households could improve their participation in these programs. Facilitating easier access and providing assistance in the application process can help ensure that those in need can benefit more directly from the grants. Implementing mechanisms to track the specific usage of grants by energy-poor households will provide better insights into the impact of the programs. This data can be used to refine and improve future grant allocations and ensure that the financial support is being effectively utilized to achieve energy efficiency goals.

7. Policy recommendations for improvements of national regulatory framework

The The proposed general recommendations outline broad guidelines for public policies aimed at improving the process of achieving energy efficiency goals, particularly focusing on the energy renovation of MABs in Estonia and energy poverty alleviation in MABs. Energy inefficiency of multi-apartment buildings remains one of the key infrastructural barriers to sustainable management of renewable energy and the overall transformation of energy production and consumption systems in Estonia. Apart from the major role that the transformation of the residential sector plays in the overall energy transition in Estonia, ensuring the energy efficiency of residential buildings through comprehensive energy renovation is a crucial initial step toward unlocking the significant potential of citizen energy in MABs in Estonia. This effort also greatly contributes to the overall decarbonization of the housing sector and the attainment of the goals[5] of transforming the European building stock into (nearly) zero-emission buildings.

[5] In March 2023, the European Parliament adopted a draft of measures aimed at increasing the rate of energy renewal and reducing energy consumption and greenhouse gas emissions. The proposed revision of the Energy Performance of Buildings Directive (EPBD) aims to significantly cut greenhouse gas emissions and energy consumption in the EU building sector by 2030, with the goal of achieving climate neutrality by 2050. Starting in 2028, all new buildings are required to be zero-emission and equipped with solar technologies, while residential buildings undergoing major renovations must meet these requirements by 2032. A nearly zero-energy building (nZEB) is a highly energy-efficient structure that incorporates renewable energy technologies in a technically reasonable manner. The building's energy efficiency rating

These recommendations stem from previously displayed analysis of previous public calls for energy renovations of MABs in Estonia, and the barriers identified in the analysis of the regulatory and policy framework outlining energy renovations of MABs and energy poverty alleviation in Estonia. Implementing elements of these policy recommendations into the current procedures, policies and legislation could significantly enhance the effectiveness, inclusiveness, and sustainability of energy renovation calls in Estonia, leading to improved energy efficiency and ultimately result in reduced energy poverty across the country.

RECOMMENDATION 1: **Conduct a comprehensive assessment of the cost-effectiveness of existing renovation measures by analyzing financial costs, energy savings, and reductions in CO2 emissions.**

RECOMMENDATION 2: **Ensure the continuous monitoring and transparency of renovation outcomes (cost-effectiveness, energy savings, and CO2 reductions) to assess the achievement of the trajectories outlined in the Long-Term Renovation Strategy (LTRS).**

RECOMMENDATION 3: **Investigate potential opportunities to implement measures aimed at alleviating energy poverty in multi-apartment buildings (MABs) to ensure that no one is left behind in the renovation process.**

must meet the low-energy building limit without accounting for locally produced renewable electricity in the energy calculations (Minimum requirements for building energy efficiency (RT I, 13.12.2018, 14)

Annex 1

Instrument "T3.1 National regulatory framework analysis"

GENERAL INFORMATION

Q.1 Country

- Croatia
- Slovenia
- Romania
- Estonia
- Poland

Q.2 Document title (English)

(Open-ended question)

Q.2.1. Link to the document (if available)

(Open-ended question)

Q.3 Year of publication

(Open-ended question)

Q.4 Main subject area (eg., energy, buildings, ownership, etc.)

(Open-ended question)

Q.5 Secondary subject area (if applicable)

(Open-ended question)

Q.6 Version of the document

- Final
- Draft

ENERGY RENOVATIONS OF MABs

Q.7 Key STAKEHOLDERS (e.g. building owners, tenants, citizens, energy agencies etc.) specified by the document

(Open-ended question)

Q.8 The document sets quantitative TARGETS for energy renovations of multi-apartment buildings (y/n)

- Yes
- No

Q.9 If YES, insert target(s) in corresponding units

(Open-ended question)

Q.10 The document specifies MEASURES for energy renovations of multi-apartment buildings (y/n)

- Yes

- No

Q.11 If YES, provide a list (without description) of specified measures. Please copy & paste measures from the referenced document.

(Open-ended question)

Q.12 The document specifies FINANCIAL SCOPE for implementation of measures (y/n)

- Yes
- No

Q.13 If YES, insert the financial scope of each measure (if available) in EUR

(Open-ended question)

Q.14 The document specifies FINANCIAL SOURCES for implementation of measures (y/n)

- Yes
- No

Q.15 If YES, provide a list (without description) of specified financial sources. For each identified measure please copy & paste the financial source (if available) from the referenced document.

(Open-ended question)

Q.16 Overall self-assessed RELEVANCE of the document for the ENERGY RENNOVATIONS OF MABs

- Low
- Medium
- High

ENERGY POVERTY IN MABs

Q.17 The document ADDRESSES energy poverty alleviation in MABs, in general (y/n)

- Yes
- No

Q.18 The document specifies concrete MEASURES for energy poverty alleviation in MABs (y/n)

- Yes
- No

Q.19 If YES, provide a list (without description) of specified measures. Please copy & paste measures from the referenced document.

(Open-ended question)

Q.20 The document specifies FINANCIAL SOURCES for implementation of measures (y/n)

- Yes
- No

Q.21 If YES, provide a list (without description) of specified financial sources. For each identified measure please copy & paste the financial source (if available) from the referenced document.

(Open-ended question)

Q.22 The document specifies FINANCIAL SCOPE for implementation of measures (y/n)

- Yes
- No

Q.23 If YES, insert the financial scope of each measure (if available) in EUR

(Open-ended question)

Q.24 Overall self-assessed RELEVANCE of the document for ENERGY POVERTY ALLEVIATION IN MABs

- Low
- Medium
- High

CITIZENS ENERGY IN MABs

Q.25 The document defines the conditions for establishing citizen energy initiatives in MABs, e.g. energy communities or RES communities (y/n)

- Yes
- No

Q.26 Which types of citizen-led energy initiatives are referenced?

(Open-ended question)

Q.27 Overall self-assessed RELEVANCE of the document for CITIZENS ENERGY IN MABs?

- Low
- Medium
- High

Annex 2

Instrument "T3.1 National regulatory framework analysis_Open form"

Q1. Based on the reviewed national regulations and other official documents concerning energy building renovations, please describe the overall current level of ambition of your country for energy building renovations of MABs as they relate to specific national targets (if there are any) and those set by the EC. How well or poorly do current national targets reflect the necessity of wide scale energy building renovations of private households in your country? In your opinion, how important is the energy building renovations of MABs in the overall energy transition in your country, and/or is it prioritised in national planning of energy transition?

(Open-ended question)

Q3. Is there a coherency of identified targets across the relevant legislation and official documents? Are there any sectoral or any other discrepancies as they relate to the

planning of energy building renovations of MABs and/or energy poverty alleviation of MABs? If so, please provide a brief description of them.

(Open-ended question)

Q4. Based on the reviewed national regulations and other official documents concerning energy building renovations, please briefly assess the suitability of identified measures for energy building renovations of MABs for the existing national context. If applicable, please describe the process of inclusion of key stakeholders in the (co-)creation of said measures and/or public discussion of defined measures. Are there any specific measures that are lacking in the national planning that should be implemented in your country regarding its specific infrastructural, institutional, socio-economic, and cultural background?

(Open-ended question)

Q5. How do the existing measures address the regional and/or local level in your country? Are there specific measures for cities and regions and how well or poorly do they reflect the actual needs and capabilities of sub-national units to implement said measures? Are there any inconsistencies regarding the conceptualisation of measures for energy building renovations of MABs between the national and local/regional level and, if so, please provide a brief description of them.

(Open-ended question)

Q6. How well or poorly do these measures recognize vulnerable social groups at the national and local levels in your country? Which social groups are, and which ARE NOT identified within the analysed legislation and official documents but are potentially especially vulnerable in your country? How well or poorly is energy poverty in MABs addressed in said documents considering existing measures? When considering the analysed documentation, is there a clear connection (in terms of main benefits, obstacles, etc.) between energy renovation of MABs and national and/or regional energy poverty alleviation?

(Open-ended question)

Q7. Which governing bodies oversee the implementation and monitoring of the measures for energy rennovantions of MABs defined in the analysed documents in your country? Please briefly assess the transparency and efficiency of these processes or entities in the implementation and monitoring processes.

(Open-ended question)

Q9. When considering the analysed documents, is there an obvious institutional jurisdiction for the implementation and monitoring of measures of energy building renovations of MABs and energy poverty alleviation of MABs? Which (types of) institutions are accentuated the most in this regard in your country and how? How well or poorly are various national institutions coordinated within the existing planning, if at all, and how do you assess their role in the implementation?

(Open-ended question)

Q10. To what extent do the analysed documents recognize and incorporate principles of just transition and social inclusion in the planning and implementation of measures of energy building renovations of MABs and energy poverty alleviation of MABs? Do the analysed documents recognize the need for wider social dialogue and public

participation in these processes, as described in the analysed documents? In this regard, how are these processes described? Which social actors are highlighted and given priority, and which ones ARE NOT, but should be, considering the wider social context? To what extent and how well or poorly is the concept of citizen energy initiatives incorporated within the analysed documents and how is its role defined regarding energy building renovations of MABs and energy poverty alleviation in MABs?

(Open-ended question)

Annex 3

Instrument "T3.1 Analysis of previous public calls"

Q.1 Country

- Croatia
- Slovenia
- Romania
- Estonia
- Poland

Q.2 What year was the Call published?

(Open-ended question)

Q.3 What is the name of the Call?

(Open-ended question)

Q.4 What is the criteria for a multi-apartment buildings? (e.g. Percentage of the total usable area that is used for housing; Minimum number of residential units; has a building manager, and other criteria)

(Open-ended question)

Q.5 Who are eligible applicants?

(Open-ended question)

Q.6 What is the (majority) percentage of interested co-owners required to initiate a project application for this Call?

(Open-ended question)

Q.7 How is the application submitted on this Call (e.g. electronically, by post)?

(Open-ended question)

Q.8 How long does the application revision process last, on average? (e.g. by calculating the time difference between the date of the application and the date of the notification of approval). Please specify in months, weeks, or days.

(Open-ended question)

Q.9 How long does it take for the complaint to be resolved?

(Open-ended question)

Q.10 What is the deadline for the signing of the Agreement from the date of adoption of the Funding decision?

(Open-ended question)

Q.11 How long is the maximum project's implementation period in this Call?

(Open-ended question)

Q.12 Please specify the total value (available financial resources) of the Call, in EUR?

(Open-ended question)

Q.13 Please specify the highest and lowest amounts of grants that can be awarded to an individual project? (in EUR)

(Open-ended question)

Q.14 Please provide a short list (in bullet points) of acceptable project activities (e.g. creation of project documentation, energy renovation)?

(Open-ended question)

Q.15 What are the minimum and maximum rates of co-financing measures for the same activities? (in EUR)

(Open-ended question)

Q.16 How many projects applied to the Call?

(Open-ended question)

Q.17 How many applied projects have been approved?

(Open-ended question)

Q.18 How many square meters in total were included in the energy renovation in this Call?

(Open-ended question)

Q.19 Are energy poor households also included in the Call?

- Yes
- No

Q.20 If YES, how many energy-poor households were involved in energy renovation?

(Open-ended question)

Q.21 Please provide a short description of the criterion for the energy poor households?

(Open-ended question)

Q.22 How much of the total grant for this Call was used? (in percentage points)

(Open-ended question)

Q.23 What are the obligatory annual minimum energy savings AS DEFINED IN THE TEXT OF THE CALL for HEATING compared to the condition before renovation? (kWh/year and/or percentage)

(Open-ended question)

Q.24 What is the obligatory annual primary energy savings AS DEFINED IN THE TEXT OF THE CALL compared to the situation before the renovation? (kWh/year and/or percentage)

(Open-ended question)

Q.25 Is RES co-financing included in the Call?

- Yes
- No

Q.26 Which RES are included in the Call (e.g. photovoltaic systems for the production of electricity)?

(Open-ended question)

Q.27 What was the RES co-financing rate in this Call?

(Open-ended question)

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