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Energy Performance Certificates: Development of EPC Policy Guidelines for Bulgaria

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CONTENTS

	Executive summary	02
	List of abbreviations and acronyms	03
	List of figures.....	03
	List of tables	03
1	Introduction	04
	1.1 Scope and objectives of the deliverable.....	04
	1.2 Structure of the deliverable.....	04
	1.3 Interactions and inferences between EPCs and other policy instruments	05
2	Methodology	09
	2.1 Approach for developing EPC policy guidelines.....	09
	2.2 Data collection and analysis.....	10
3	Policy needs and status quo of EPCs in Bulgaria.....	12
	3.1 Policy needs and priorities.....	12
	3.2 Current EPC system: opportunities for development.....	13
4	EPC policy guidelines for Bulgaria	16
	4.1 Policy options and scenario for improvement.....	16
	4.2 Details on implementation of high priority measures.....	20
	4.2.1 What is foreseen in the EPBD?.....	20
	4.2.2 What has the country already done in relation to the measure(s)?	21
	4.2.3 What can be done?	22
	4.3 Proposed action plan and first steps.....	24
	4.4 Monitoring and Evaluation of EPC schemes.....	26
5	Conclusions, recommendations and next steps	28
6	References.....	30

EXECUTIVE SUMMARY

This document presents key policy measures and recommendations for energy performance certificates (EPCs) in Bulgaria, within the framework of the EPBD.wise project. The overarching aim is to improve energy efficiency in the building sector, focusing on compliance, methodology refinement and digitalisation to align with national and EU objectives, based on the Energy Performance of Buildings Directive (EPBD).

The methodology used for each focus country was to first identify its policy needs, the types of intervention called for, and the priorities and policy measures required to address them. For Bulgaria's EPC system, policies are needed on public perception, database management, quality control and auditor capacity.

Key recommendations for Bulgaria are as follows:

- Decouple the detailed energy audit from the issuance of EPCs; implement virtual means in site visits and digital, machine-readable certificates.
- Establish an independent quality control system to ensure that at least 90% of issued EPCs are valid with 95% statistical confidence, with clear guidance on enforcement and penalties.
- Reinforce and invest in EPC auditor training, updating courses to make them more accessible covering best practices and new methodologies.
- Enhance the EPC database so it can identify poorly performing buildings, and guarantee user-friendly online access for building owners, tenants, policymakers, NGOs and academic institutions.
- Simplify EPC calculation methodology and improve the supporting software, leveraging recent innovations from neighbouring countries like Hungary for greater accuracy and ease of use.
- Raise the quality of recommendations contained in EPCs, ensuring they are actionable, tailored to the building, and directly linked to one-stop-shops for renovation support.
- Improve public understanding and perception of EPCs by developing one-stop-shops and implementing effective communications strategies tailored to different audiences.

List of abbreviations and acronyms

DBL	Digital Building Logbook
DGEG	Directorate General for Energy and Geology
EPBD	Energy Performance of Buildings Directive
EPC	Energy Performance Certificate
GHG	Greenhouse Gas
MEPS	Minimum Energy Performance Standards
MS	Member State
NBRP	National Building Renovation Plan
NZEB	Nearly zero-energy building
RP	Renovation Passport
ZEB	Zero-Emission Building

List of figures

Figure 1	Data collection and analysis for EPC policy guidelines development	11
Figure 2	Bulgaria's EPC front page layout	22

List of tables

Table 1	Interactions between EPC and other EPBD policy elements.....	08
Table 2	Policy priorities and measures for Bulgaria.....	13
Table 3	Bulgaria's policy gaps and EPBD opportunities	15
Table 4	Bulgaria's specific measures to be implemented, suggested country pathway and responsible entities	19
Table 5	EPBD requirements related to Bulgaria's measures	21
Table 6	Implementation status of measures and obligations	21
Table 7	Status quo of EPBD Annex V requirements for EPC front page layout.....	23
Table 8	Bulgaria's EPC policy improvement stakeholders list and roles	24
Table 9	Bulgaria's proposed action plan.....	25
Table 10	Policy needs categorized by intervention type, per country.....	28

INTRODUCTION

1.1 Scope and objectives of the deliverable

This deliverable focusses on specific policy guidelines for each of the focus countries for which national partners defined EPCs as a priority under the EPBD-wise framework: these are Bulgaria, Greece, Hungary and Poland. The main objective is to assess different options for improving the EPC schemes in these countries under the new Energy Performance of Buildings Directive (EPBD) requirements. This assessment is based on the extensive work carried out in previous EPBD-wise tasks, namely the mapping of policy needs for each country and the identification of good practices in a wide range of topics such as communication and perception, quality control, expert training and qualification, database use and calculation methodologies, among others. The policy guidelines will consider different approaches based on best practice examples and the specific conditions in the target countries, reflecting the current status of their EPC systems along with any ongoing or planned modifications.

This document focuses on Bulgaria, and provides detailed policy guidelines for the development and improvement of its EPC system under the EPBD framework.

An initial attempt to define priority action plans is also developed by pinpointing priority interventions selected from the range of policy guidelines. Each roadmap outlines the steps required, ensuring a clear and actionable path forward as well as defining the specific stakeholders and their roles in this process.

The main aim of this deliverable is to match policy objectives with policy needs and mandates, particularly focusing on the EPBD. Specific policy needs can be addressed more effectively by leveraging the transposition of the EPBD. They will also be grouped to streamline the process and prepare the ground for replication.

1.2 Structure of the deliverable

Besides this introductory chapter which outlines the objective's structure and links with other policy elements of the EPBD, there are three main sections in this deliverable:

The methodology section describes the approach used to develop the Policy Guidelines, including the methods used to collect and analyse data. It then focuses on the policy needs and the current implementation status of EPCs in Bulgaria.

Next, the document presents EPC policy guidelines for Bulgaria. It outlines the opportunities for development in the current EPC system framework, and proposes options and scenarios for improvement. An action plan with initial steps is provided, along with a monitoring and evaluation framework that Bulgaria can apply to ensure the ongoing effectiveness of EPC schemes.

The last chapter details the main conclusions and recommendations for Bulgaria, and provides a short comparative cross-country analysis of policy gaps and opportunities to establish a replicable framework.

1.3 Interactions and inferences between EPCs and other policy instruments

The EPBD introduces significant changes to the framework for EPCs across Member States. A harmonised classification system from Class A to G must be implemented by 29 May 2026 (derogations apply), where Class A corresponds to zero-emission buildings (ZEBs) and Class G identifies the worst-performing buildings in the national stock. Member States that already apply an A0 class for ZEBs may continue this designation, with adjustments to the rest of the scale. The distribution of Classes B to F should ensure a suitable reflection of the national building stock while respecting the EU-wide framework, allowing differentiation by building types (residential/non-residential) and climatic zones. An additional A+ class can be included voluntarily, and is applicable to buildings that have an energy demand 20% lower than the ZEB threshold and that generate more renewable energy on site than they use.

Member States that have rescaled their EPC schemes between 1 January 2019 and 28 May 2024 may defer the new classification requirements until 31 December 2029 to preserve stability in national systems. EPCs must express energy performance as a primary energy indicator kWh/(m².y) and include other indicators such as operational greenhouse gas emissions and on-site renewable energy use. While certain indicators are mandatory, Member States may add voluntary ones such as detailed splits by type of use and building element details, carbon removals, number and type of recharging points for electric vehicles, or smart readiness. EPCs must also have a uniform visual identity nationally, be machine-readable and accessible, and include clear recommendations on energy performance improvement, emissions reductions, and indoor environmental quality.

Affordability is addressed by encouraging Member States to implement measures such as cost caps or financial support for vulnerable households. Quality control provisions require that at least 90% of EPCs are statistically valid and that a minimum of 25% undergo third-party verification when controls are delegated to non-governmental bodies, with the possibility of reducing this share as system reliability improves. Simplified EPC update procedures must be in place when minor improvements or renovation passport measures are implemented.

EPCs remain valid for 10 years, but new certificates must be issued at key trigger points, including construction, major renovation, sale, rental or contract renewal. Display obligations are expanded to cover all public buildings and non-residential buildings frequently visited by the public, regardless of size. These measures aim to improve EPC transparency, comparability and reliability across the EU while allowing flexibility for national adaptation.

In addition to the legal and technical requirements established in the EPBD and its respective guidance documents^[1], the development of EPC systems across Member States can be further guided by the strategic insights provided by the NextGen EPC Cluster, which consolidates outputs from nine Horizon 2020 projects focused on next-generation EPCs^[2].

This cluster recommends positioning EPCs as a central, user-friendly and interoperable tool in the building decarbonisation agenda, in line with broader EPBD provisions such as minimum energy performance standards (MEPS), ZEBs, renovation passports, and digital building logbooks. Key recommendations include:

- Harmonised calculation methodologies: Adoption of a shared core ('kernel') calculation logic based on EU standards (e.g. CEN standards under Mandate M/480), promoting comparability and transparency across Member States.
- Additional focus on non-renewable primary energy, to allow fair comparison across different energy systems and technologies.
- Integration of measured data (e.g. from smart meters or indoor environmental quality sensors) to complement or validate calculated performance, helping to reduce the performance gap and better reflect actual building behaviour.
- Dynamic and user-centric EPCs: Certificates should evolve from being static compliance documents into interactive tools that reflect renovation progress, are updated with real-time data, and are integrated with renovation passports, digital building logbooks and the smart readiness indicator.
- Enhanced quality assurance and training: Establishment of harmonised protocols for third-party verification, continuous training and certification of EPC assessors, and rigorous validation of input data.
- Actionable and forward-looking recommendations: EPCs should provide structured renovation guidance aligned with deep renovation principles and long-term decarbonisation pathways (e.g. target Class A or ZEB by 2050).
- Broader indicator coverage: Certificates should progressively integrate indicators related to indoor environmental quality, smart readiness, carbon performance and climate resilience.
- Full digital interoperability: EPCs must be machine-readable and interoperable with national and EU-level building databases, enabling streamlined integration with public policy tools and financing schemes.

These recommendations support the EPBD's objective of making EPCs a central pillar in planning, implementing and monitoring energy renovation strategies at building, district and national levels, while also enhancing reliability, usability and public trust in the certification process.

EPCs have an intrinsically pivotal role in several elements of the EPBD, most notably the ones that are directly addressed by EPBD.wise: EPCs can be used to **check compliance with MEPS**, and they work hand in hand with building **renovation passports – they can be issued jointly and renovation passport improvement measures can replace EPC recommendations in certain cases**. The ZEB definition is intrinsically connected with the EPC, since **EPC labels are built on evenly distributed scales that will always mean a ZEB is Class A**.

When defining **national building renovation plans (NBRPs)**, one crucial aspect is the **definition of the very worst-performing buildings**. These must **correspond to EPC Class G**, which gives the EPC a central role in defining national trajectories for residential building stock, as well as its role in defining minimum energy performance standards (MEPS) for the non-residential sector, which can use thresholds directly linked to EPC classes. In parallel, EPC registers and databases provide a unique, harmonised source of information on the building stock, enabling Member States to map the distribution of energy classes across dwelling types and regions, identify renovation needs, and quantify the shares of worst-performing buildings and energy-poor households. This data infrastructure allows NBRPs to set evidence-based trajectories, monitor progress over time against intermediate milestones (e.g. reductions in the share of Class G and F buildings), and update policy measures as new certificates are issued, thus turning the EPC into a continuous feedback and monitoring tool rather than a one-off compliance document. It is also instrumental in ensuring that the most vulnerable consumers are correctly addressed, as most of them are likely to be living in the worst-performing buildings. EPC-based data can support the targeting and tracking of social measures and dedicated support schemes in line with the EPBD requirements to prioritise the worst-performing and energy-poor households.

EPCs are also critical as part of the monitoring, reporting and verification of EPBD related initiatives as they are the **core part of the data to feed the energy performance of buildings database**. These databases are essential for actions across a variety of different levels, as depicted in the EPBD:

- 1 At the building level, since the data stored will allow easy and free-of-charge access to the full EPC (which includes the identification of energy performance improvement recommendations) for building owners, tenants and managers.
- 2 At the neighbourhood level, for example as a support tool for initiatives related to energy communities and citizen-led initiatives.
- 3 At the city/regional level, by providing local authorities with access to data on the energy performance of buildings in their territory (for instance, to facilitate the drafting of heating and cooling plans).
- 4 At the national level, as this information should be anonymised, made publicly available, coherent and interoperable with other national building databases. It should also be used to better plan, monitor and implement public policies and financing mechanisms.

Furthermore, **EPCs have a role in ensuring adequate funding is in place and aligned with the long-term targets**, and that barriers related to high upfront costs – especially on vulnerable consumers prone to energy poverty – are addressed and prioritised. This can be done at the building level by incorporating renovation passport features and information aligned with the 2050 decarbonisation target and the needs and expectations of building owners, managers and users. EPCs are also a useful tool for providing support to financing schemes pinpointing concrete renovation measures at the building level, as well as for informing, driving and monitoring building renovation policies and funding schemes.

Finally, **EPCs take the lead role in the communication of building energy performance**. EPCs are the key source of information on all aspects related to this metric. They can – and should – include additional indicators and data on subjects such as greenhouse-gas emissions and global warming potential, capacity to provide demand response to the grid, carbon storage and removal, building smartness, and indoor environmental quality.

The following table summarises the interactions between EPCs and other EPBD elements, and the policy directions these imply:

Policy Instrument / Element	Functional Level	Primary Function	Interaction with EPCs	Policy Implications
Minimum Energy Performance Standards (MEPS)	Regulatory Enforcement	Define and enforce minimum energy performance thresholds for buildings	EPCs can be used to check compliance with MEPS; energy classes (A-G) can be directly linked to MEPS thresholds	EPCs operationalise MEPS by providing measurable, comparable performance data for enforcement
Renovation Passports (RP)	Building-Level Execution and target alignment	Provide stepwise renovation roadmaps for individual buildings	EPCs can be issued jointly with RPs; RP improvement measures may replace EPC recommendations in some cases	EPCs and RPs together guide and track deep renovation, aligning building upgrades with policy targets
Zero-Emission Buildings (ZEB)	Strategic Benchmark	Set the highest energy performance standard (Class A)	EPC energy classes are anchored to ZEB definitions (Class A corresponds to ZEB); EPCs signal ZEB achievement	EPCs communicate ZEB status and progress, supporting national and EU decarbonisation goals
National Building Renovation Plans (NBRP)	National Strategy	Define national trajectories and targets for building stock	EPCs identify worst-performing buildings (Class G) and track progress towards NBRP targets	EPCs provide data for planning, monitoring and reporting under NBRPs
Digital Building Logbooks (DBL)	Data Integration	Aggregate building data for policy and financing	EPCs are integrated into DBLs, providing standardised, machine-readable performance data	EPCs enable interoperability and data-driven policy/funding decisions
Quality Assurance & Control	System Reliability	Ensure reliability and validity of EPCs	EPCs are subject to independent control systems, third-party verification, and statistical sampling	EPCs' credibility and policy impact depend on robust quality control
Financial Support & Affordability	Social Equity	Support vulnerable households and promote uptake	EPCs may trigger financial support; affordability measures are linked to EPC issuance and recommendations	EPCs help target and monitor financial support, ensuring equitable policy implementation
Public Information & Awareness	Communication	Raise awareness and promote energy efficiency	EPCs serve as the main communication tool for building energy performance, including greenhouse gases, global warming potential, and renovation options	EPCs drive public engagement and informed decision-making

Table 1 – Interactions between EPC and other EPBD policy elements

This document explores the opportunities that are open to Bulgaria for effectively addressing the policy needs it has identified, complying with the new EPBD requirements and ensuring the EPC system can contribute to the strategic setting defined above.

METHODOLOGY

This section describes the methodology used to define the policy guidelines for the effective use of EPC schemes in the focus countries. This includes previous work on the specific policy needs, gaps and good practices identified for the countries in question, and the opportunities that the new EPBD may offer.

2.1 Approach for developing EPC policy guidelines

The development of EPC policy guidelines started with the mapping of policy needs and best practices, which involved gathering insights from various sources. Initially, insights were drawn from previous EU projects, national initiatives, direct stakeholder engagement, and a thorough review of relevant literature. This comprised a combination of desk research, stakeholder interviews and workshops. Stakeholder interviews at the national level were planned to identify the specific challenges faced in each country. Additionally, collaborative workshops held during policy forums developed by the EPBD.wise project helped to facilitate dialogue among experts, policymakers and stakeholders, fostering the exchange of ideas and the identification of key challenges and policy requirements. While the primary focus of the project is on the six designated countries – i.e. Bulgaria, Greece, Hungary, Poland, Romania and Ukraine – it was nevertheless also crucial to consider its broader implications across the EU.

Therefore, the compilation and analysis of policy needs extend beyond these focus countries, ensuring a comprehensive understanding with potential applicability across EU Member States. To survey and identify policy needs, a questionnaire was distributed to the six countries selected in the EPBD.wise project, allowing respondents to select the most important topics for further development. The results of both questionnaires have been used to identify policy needs in each focus country.

A second stage involved the identification of best practices to help meet the key policy needs identified, with examples retrieved from various EU countries. These examples generally address several challenges, including poor governance due to insufficient collaboration among different levels of government, staff shortages in public administrations, and data-related issues such as availability and quality. In the construction industry, labour and skill shortages, along with fragmented supply chains, hinder workforce capacity and investment.

The previous two steps are further detailed, including all the results and conclusions for each focus country in^[2]. This is the first report from the EPBD.wise project, titled “Energy Performance Certificates: Policy needs and best practices”.

Following the initial mapping, the selection was further streamlined by determining which of the countries selected EPCs as a priority for development. On this basis Bulgaria, Greece, Hungary and Poland were chosen as the target countries for advancing with detailed policy guidelines. The overall process for selecting and analysing focus countries, contact points, inputs and further research is depicted in Figure 1 (see Section 2.2 Data collection and analysis).

2.2 Data collection and analysis

As has already been stated, one of the main sources for these policy guidelines was the first EPBD-wise deliverable related to EPCs, namely Energy Performance Certificates: Policy needs and best practices^[2]. Figure 1 below illustrates the overall process, which began with data analysis performed under this framework including desk research, the questionnaire answered by each focus country, and interactions with focus countries in meetings and policy forums.

The next step included a fine-tuning of the best practices in light of specific EPBD opportunities for the country analysed and its planned implementation pathways, and the creation of tailored country questionnaires based on the policy needs identified in the previous step and on additional interactions with focus countries.

In the final step, the policy options, priorities and action plan were peer-reviewed by EPBD-wise partners, contact points in the focus countries, and other stakeholders. The final version of the policy guidelines includes their feedback.

Based on the results of the first two stages of the project, especially on the specific policy needs for the four focus countries, additional questionnaires were developed that included the following subjects:

- 1. EPC rescaling and calculation methodology**
- 2. EPC databases**
- 3. Training and education of experts**
- 4. Quality control mechanisms**
- 5. Integration of other indicators/schemes with EPCs**
- 6. EPC recommendations**
- 7. Communication and perception**

The questionnaires provided the basis for the interviews and informed additional data-gathering when required. The main objective was to delve deeper into each policy need, assess the current status of the EPC system in relation to it, scrutinise current planning and activities related to the EPBD transposition, identify the main stakeholders, and pinpoint what kind of short-term actions could be leveraged and proposed.

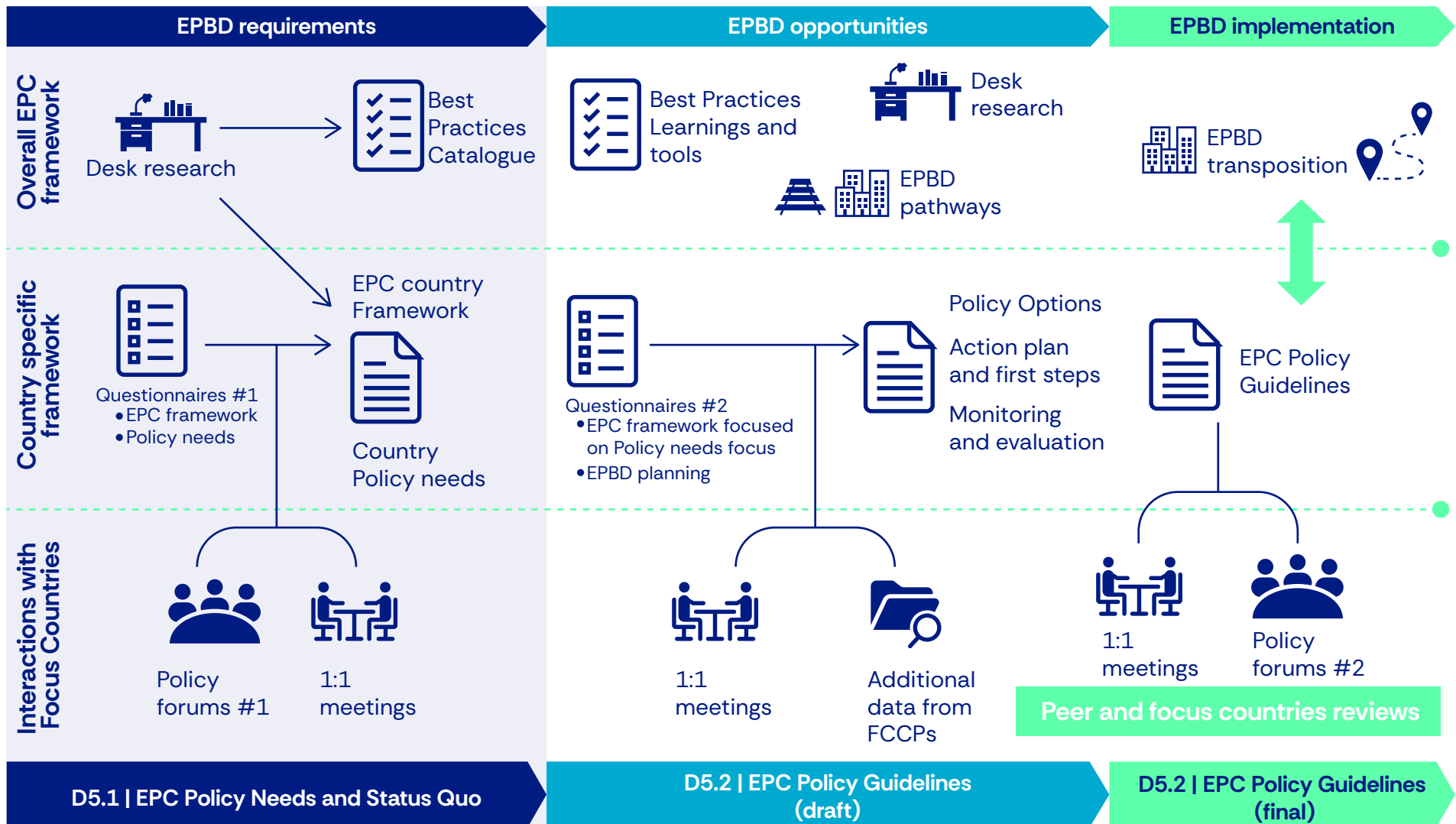


Figure 1 – Data collection and analysis for EPC policy guidelines development

POLICY NEEDS AND CURRENT STATUS OF EPCs IN BULGARIA

In this chapter, a summary of the main policy needs identified in the previous work under EPBD.wise is presented, together with a first prioritisation.

3.1 Policy needs and priorities

In Bulgaria, the legal framework for EPCs covers both new and existing buildings. For new constructions EPCs are usually issued on the basis of the building's energy design calculations (i.e. the planned performance according to the project documentation), rather than on measured energy use. However, existing buildings require a comprehensive energy audit. The audit results are summarised and sent to the Sustainable Energy Agency. The calculation uses a stochastic monthly model for all building types. However, public perception of EPCs is generally negative due to frequent technical errors, a lack of penalties, and limited quality control. EPCs have been mandatory for new buildings since 2009 but are less accepted for older residential buildings. High costs and a shortage of qualified specialists further hinder the system. Policy recommendations include simplifying the EPC format, enhancing the database, and improving quality control to increase acceptance and effectiveness.

In summary, Bulgaria's EPC system faces significant challenges related to public perception, database management, quality control, integration with other indicators, and auditor capacity.

Based on the initial policy needs and priority definitions, and following the meetings and additional data received from the focus countries, the following top six priorities were identified for Bulgaria:

Bulgaria's policy priorities and measures						
Priority	#1	#2	#3	#4	#5	#6
Bulgaria's policy priorities	Simplify the calculation methodology and improve software	Change the way in which EPCs are issued	Reinvest and enhance training for EPC auditors	Improve the EPC database	Implement a quality control system	Improve public information, perception, and the quality of EPC recommendations
Policy need category	EPC rescaling and calculation methodology		Training and auditor capacity	EPC databases	EPC quality control	EPC communication/perception/recommendations
Intervention type	Technical/legislative and regulatory		Technical	Technical	Technical/legislative and regulatory	Information and perception

Table 2 – Policy priorities and measures for Bulgaria

Although all aspects of the main policy needs are addressed in each country, this prioritisation exercise was crucial for developing the policy improvement scenarios detailed in Chapter 4, EPC policy guidelines for Bulgaria. It helped to define and focus on the first steps of the action plan, and to identify relevant stakeholders for prioritised actions.

3.2 Current EPC system: opportunities for development

Policy priorities are measures or actions identified for each policy need. In this section, the aim is to explore how the opportunities identified in the EPBD can help to address policy priorities and needs.

Policy priority # 1 – Simplify the calculation methodology and improve software: The EPBD sets out a common EU framework for calculating building energy performance. It requires Member States to use a national methodology that expresses energy performance as primary energy use kWh/(m².y), based on detailed, time-resolved calculations of heating, cooling, hot water, ventilation, lighting and technical systems under typical conditions. It takes into account building characteristics, renewables, district systems and indoor climate, with regularly updated primary energy factors and additional indicators for renewable energy and greenhouse gas emissions; and it mandates that minimum energy performance requirements must be reviewed and updated at least every five years to reflect technical progress, cost-optimal levels and national climate targets.

Policy priority # 2 – Change the way in which EPCs are issued: The EPBD allows Member States to design their certification process in a way that reduces complexity and cost, for example by separating the detailed energy audit from the EPC issuance, provided that the methodology remains transparent, reliable and comparable across the Union. It encourages the use of simplified or updated EPCs based on specific renovation measures or metered data, as long as the overall calculation of energy performance complies with the common EU framework (Annex I) and is regularly reviewed and updated to reflect technical progress and national climate targets.

Policy priority # 3 – Reinvest and enhance training for EPC auditors: The EPBD requires that EPCs and inspections be carried out by qualified or certified independent experts. It obliges Member States to ensure their certification, to make public lists of such experts, and to promote training and education to ensure a sufficient and competent workforce in the construction and energy renovation sector.

Policy priority # 4 – Improve the EPC database: New EPBD provisions state that the database must allow data to be gathered from all relevant sources related to EPCs, inspections, renovation passports, the smart readiness indicator, and the calculated energy consumption of the buildings covered. Member States must also ensure that local authorities have access to relevant data on the energy performance of buildings in their territory.

Policy priority # 5 – Implement a quality control system: Regarding quality assurance and control procedures, the new EPBD framework requires Member States to implement an independent control system to ensure that at least 90% of issued EPCs are valid with 95% statistical confidence. Furthermore, third-party evaluation is mandated for at least 25% of the random sample when the control system is delegated to non-governmental bodies. To ensure the reliability and effectiveness of the control system, the sampling rate should start at a sufficiently high level. It can be gradually reduced as compliance levels and overall system reliability improve.

Policy priority # 6 – Improve public information, perception, and the quality of EPC recommendations: Programmes to provide information, training and raise public awareness on EPCs should be developed by local and regional authorities. One-stop-shops are an option. EPC recommendations are expected to include information on energy savings and the potential to reduce operational greenhouse gas emissions, the improvement of indoor environmental quality, financial incentives and benefits, available administrative and technical support, and possible alternatives for the replacement of the heating and cooling system.

Table 3 summarises Bulgaria's specific policy needs (as identified in "Energy Performance Certificates: Policy needs and best practices"^[31]), the country's current planning, and the opportunities identified in the EPBD.

Policy needs for effective EPC systems design	Current planning	EPBD opportunities
EPCs for existing buildings require a comprehensive energy audit. The calculation methodology uses a stochastic monthly model.	In line with EPBD transposition (TBD)	<p>EPCs should be issued by independent experts based on an on-site visit, which may be carried out, where appropriate, by virtual means with visual checks.</p> <p>Change in the calculation methodology is needed.</p>
EPCs' quality is often unsatisfactory – frequent technical errors or erroneous acceptances are aggravated by the absence of penalty mechanisms and limited quality control resources.	In line with EPBD transposition (TBD)	<p>MS must provide a clear definition of the quality objectives and the level of statistical confidence that the EPC framework should achieve. The independent control system must ensure that at least 90% of EPCs issued are valid, with a statistical confidence of 95%.</p> <p>The validity of the input data should be verified with information provided by the independent expert.</p> <p>The validity of the input data should be verified by on-site visits, which may be carried out by virtual means, where appropriate, in at least 10% of the EPCs that are part of the random sampling used to assess the overall quality of the scheme. MS may use different strategies to detect and target poor quality in EPCs with the objective of improving the overall quality of the scheme.</p> <p>MS must deploy measures (additional training for independent experts, targeted sampling, obligation to re-submit EPCs, proportional fines and bans for experts) to ensure the quality of the overall EPC framework.</p>
EPCs can have high costs.	In line with EPBD transposition (TBD)	MS must take measures to ensure that EPCs are affordable, and should consider whether to provide financial support for vulnerable households.
There are few qualified EPC specialists, and a lack of training courses.	Training started in 2023	Promote training courses for experts.
Information and perception / EPC recommendations	In line with EPBD transposition (TBD)	<p>Local and regional authorities should be consulted and involved in the development of programmes to provide information and raise awareness.</p> <p>MS should provide information and carry out awareness-raising campaigns.</p> <p>Recommendations on improving building envelopes or technical building systems must include more details on:</p> <ul style="list-style-type: none"> • The energy savings and operational GHG emissions reduction potential; • The improvement of indoor environmental quality; • Financial incentives and benefits; • Available administrative and technical support; • Possible alternatives for the replacement of the heating and cooling system.

Table 3 – Bulgaria's policy gaps and EPBD opportunities

EPC POLICY GUIDELINES FOR BULGARIA

Key policy options and measures for Bulgaria include simplifying the calculation methodology and improving software (**Policy priority # 1**), changing the methodology used to issue EPCs (**Policy priority # 2**), reinvesting and enhancing training for EPC auditors (**Policy priority # 3**), improving the EPC database (**Policy priority # 4**), implementing a quality control system (**Policy priority # 5**), and improving public information, perception, and the quality of EPC recommendations (**Policy priority # 6**).

4.1 Policy options and scenario for improvement

Policy priority # 1 – Simplify the calculation methodology and improve software

To simplify the calculation methodology, Bulgaria could take as an inspiration the new methodology from Hungary^[4] that follows regulatory standards, employing simplified methods for most buildings and more advanced techniques for complex constructions, and complies with the need to have at least monthly calculations as stated in the new EPBD (paragraph 2, Annex I – Common general framework for the calculation of the energy performance of buildings). The simplified method estimates energy consumption on a monthly basis; for complex buildings and systems, calculations follow EPB standards^[5], numerical methods, or dynamic simulations. Among the improvements to be made is an additional simplification of the calculation and a possible change in the layout to comply with the new EPBD requirements. Bulgaria could take advantage of the lessons learned by Hungary, and evaluate how to adapt them to its own setting during the EPBD transposition process.

Policy priority # 2 – Change the way in which EPCs are issued

Currently, EPCs can only be issued after the auditors complete the full audit procedure: this is one of the central concerns about the methodology in use. The high level of complexity also results in practical drawbacks. The cost of working in this way remains high, justifying the need for the separation between the audit and EPC issuing processes. Bulgaria can also make it simpler to issue EPCs by permitting virtual means in site visits where appropriate, and by enabling the issuing of digital, machine-readable certificates. In addition, there are implementation problems related to the lack of effective control mechanisms and the absence of deterrent penalties. Pressure from public grant programmes, which often require ambitious energy savings to qualify for funding, may also encourage auditors to manipulate input data or calculation assumptions to meet these requirements, undermining the credibility of the EPC system.

Policy priority # 3 – Reinvest and enhance training for EPC auditors

Bulgaria has already made significant progress in promoting training courses for experts. As of May 2025, Bulgaria had approximately 2,000 registered energy auditors (according to the Sustainable Energy Development Agency). New training programmes continue to be organised, including courses held by Sofia Technical University. These courses typically involve around 75 contact hours, including 40 hours of practical exercises. The cost of the training is approximately €1,800 per participant, which is roughly four times the country's minimum monthly salary.

Further efforts could focus on making courses more affordable. Continuous professional development and recertification, as recommended by Article 26 of the EPBD, should also be institutionalised to maintain high assessment standards.

Policy priority # 4 – Improve the EPC database

The current database is useful and easy to work with, but it is not representative of the national building stock, and needs to be improved to accurately identify the worst-performing buildings. This includes expanding and quality-assuring the dataset and ensuring full integration of EPCs, inspections, renovation passports, smart readiness indicator assessments, and measured energy consumption, as well as interoperability with cadastral and property registers through unique building identifiers. It is also important to establish clear rules on data ownership, accuracy and GDPR-compliant access, and to provide easy, digital and free access to building-specific data for owners, tenants, policymakers, NGOs and academic institutions via user-friendly online platforms, with privacy guaranteed through anonymised public data and tiered access^[6].

Policy priority # 5 – Implement a quality control system

The new EPBD requires Member States to implement an independent control system to ensure that at least 90% of issued EPCs are valid with 95% statistical confidence. To ensure the reliability and effectiveness of the control system, the sampling rate should start at a sufficiently high level and can then be gradually reduced as compliance levels and overall system reliability improve. Enforcing a penalty procedure because of a partial lack of compliance with the EPBD could also be an option for Bulgaria.

Policy priority # 6 – Improve public information, perception, and the quality of EPC recommendations

One-stop-shops could be a good option for improving communication and raising public awareness. It is essential to improve communication strategies and ensure that the recommendations provided in EPCs are specific, actionable and understandable for building owners and users, in order to enhance the credibility, usefulness and overall impact of the scheme.

These measures are not only technically feasible but also strategically important for Bulgaria's broader energy policy objectives. The following section outlines how each priority measure relates to other policy elements, supports EPBD compliance, and contributes to national decarbonisation goals.

Links with other policy elements

The measure to simplify the calculation methodology and improve software aligns with the digitalisation and modernisation of administrative processes, enhancing efficiency and transparency while also improving communication by generating clearer and more accessible indicators. Updating the way in which EPCs are issued (by decoupling the energy audit process from the issuance of the EPC) could make EPCs affordable, as is addressed in the EPBD (Article 19, paragraph 4)^[7]. It also supports regulatory quality and standardisation, ensuring reliability and comparability in energy performance certification, which is crucial for the effective implementation of MEPS and NBRPs. The focus on enhancing quality assurance and compliance frameworks strengthens governance and policy monitoring, ensuring that MEPS and ZEB requirements are properly enforced and that the public perception of EPCs improves.

Investing in training and capacity-building contributes to increasing the number of auditors as well as skills development, equipping professionals with the necessary expertise to implement ZEB principles and deep renovation strategies. The improvement of the national database and data exchange supports system integration and interoperability, facilitating data-driven decision-making that is essential for tracking progress on MEPS and NBRPs. Lastly, enhancing information campaigns fosters stakeholder engagement and public awareness, promoting active participation in policy implementation and increasing acceptance of renovation passports and ZEB targets.

Measure	EPBD requirements	Country-specific pathway	Responsible for policy implementation
Policy priority # 1 Simplify the calculation methodology and improve software	Change the calculation methodology if it is not compliant with the set indicators and energy classes.	Simplify method for most buildings while applying more advanced techniques for complex constructions (as in Hungary).	Sustainable Energy Development Agency
Policy priority # 2 Change the way in which EPCs are issued	EPCs should be issued by independent experts based on an on-site visit, which may be carried out, where appropriate, by virtual means with visual checks.	<ul style="list-style-type: none"> Separate the detailed energy audit process from the regulatory aspects of EPC issuance. Simplify EPC issuance by permitting virtual means in site visits where appropriate. Simplify EPC issuance by enabling issuance of digital and machine-readable EPCs. 	Sustainable Energy Development Agency
Policy priority # 3 Reinvest and enhance training for EPC auditors	Promote training courses for experts.	New training programmes in place; need to make courses more affordable.	Educational institutions, Sustainable Energy Development Agency, Ministry of Energy
Policy priority # 4 Improve the EPC database	Set up a national database for the energy performance of buildings which allows data to be gathered on individual buildings and on the overall national building stock. The database should allow data to be gathered from all sources related to EPCs, inspections, renovation passports, the smart readiness indicator, and the calculated energy consumption of the buildings covered.	<ul style="list-style-type: none"> Technical enhancement to define the worst-performing buildings, improve efficacy and accessibility to facilitate wider adoption of energy efficiency measures. Ensure free access for owners, tenants, policymakers, NGOs and academia. 	Sustainable Energy Development Agency
Policy priority # 5 Implement a quality control system	To ensure the quality of EPCs, renovation passports, smart readiness indicators and system inspections, an independent control system should be established in each Member State.	<ul style="list-style-type: none"> Implement an independent control system ensuring that at least 90% of issued EPCs are valid with 95% statistical confidence. Include guidance over punitive measures. 	Sustainable Energy Development Agency, Ministry of Energy
Policy priority # 6 Improve public information, perception, and the quality of EPC recommendations	Member States must ensure the establishment and operation of one-stop-shops for the energy performance of buildings, targeting all actors involved. Local and regional authorities should be consulted and involved in the development of programmes to provide information and raise awareness. Recommendations must now also include more details on: <ul style="list-style-type: none"> The energy savings and operational greenhouse gas emissions reduction potential. The improvement of indoor environmental quality. Financial incentives and benefits. Available administrative and technical support. Possible alternatives for the replacement of the heating and cooling system. 	<ul style="list-style-type: none"> Create one-stop-shops. Improve communication strategies. Ensure one-stop-shops give specific, actionable and understandable recommendations. 	Sustainable Energy Development Agency, Ministry of Energy

Table 4 – Bulgaria: specific measures to be implemented, suggested country pathways and responsible entities

4.2 Details on implementation of high-priority measures

This chapter presents a selection of priority measures which have the strongest potential to address key challenges. Each measure is described and analysed in detail, with particular attention to its implementation pathway, expected benefits, and role within the broader policy framework. The aim is to provide practical and actionable insights into how these measures can be translated into effective action.

4.2.1 What is foreseen in the EPBD?

Annex I of the EPBD establishes that the energy performance of buildings must be based on current European and international standards and needs to be transparent, open to innovation, and allow for the integration of software tools that facilitate effective, reliable and auditable energy performance assessment. The methodology should cover all relevant aspects affecting energy use, including thermal insulation, heating, cooling, ventilation, hot water, lighting and renewable energy integration, while relying on primary energy as the key performance indicator. Annex I establishes a common general framework, specifying that the calculation must use at least monthly time intervals (more granular intervals, such as hourly, may also be used), to ensure that varying operating conditions and user behaviours are accurately represented.

Member States must ensure that software tools use regularly updated and forward-looking primary energy factors, distinguish between renewable and non-renewable energy sources, and provide for the validation of calculations through comparison with metered data where possible. Furthermore, the methodology and associated software should be user-friendly and support digitalisation, enabling integration with national databases and the development of machine-readable, interoperable certificates in line with the EPBD's push for greater transparency, efficiency and reliability across the EU building stock.

The EPBD establishes clear provisions regarding the issuance of EPCs that align closely with Bulgaria's proposals to separate the full energy audit from the EPC issuing process. Specifically, the EPBD mandates that EPCs must be issued by independent qualified experts based on a site visit, which may use virtual means if appropriate, ensuring both reliability and practicality (Article 19). The directive requires EPCs to be made available in digital form with machine-readable and interoperable formats, facilitating integration with national databases and wider digital infrastructures.

Furthermore, EPCs must be issued on key legal triggers such as construction, major renovation, sale, rental or contract renewal of buildings, with a maximum validity period of 10 years. The directive supports simplified updating of EPCs when minor renovations occur or when renovation passports are implemented, making it more feasible to decouple the detailed audit process used for investment planning from the standard EPC issuance needed for regulatory compliance.

These provisions emphasise the balance between maintaining the rigour of detailed audits for complex renovation projects and enabling streamlined, affordable EPC issuance to maximise accessibility and compliance.

The EPBD also emphasises the critical importance of developing a well-qualified workforce to support credible and reliable EPC schemes. Member States are required to ensure that EPC assessors possess the necessary competencies through mandatory education, formal training courses, and certification processes. The directive promotes continuous professional development and periodic re-certification to maintain high standards. These measures aim not only to improve the quality and consistency of EPCs, but also to increase the number of qualified auditors to meet growing demand.

EPBD requirement	Summary
Calculation methodology	Based on updated European standards, transparent, auditable, and designed for integration with digital tools; must cover all relevant factors (insulation, heating, cooling, ventilation, hot water, lighting, renewables) and use primary energy as the central indicator.
User-friendliness and digitalisation	Calculation methods and software should be user-friendly, digital, and allow integration with national databases; certificates must be machine-readable, interoperable, and available in digital formats.
EPC issuing process	Certificates must be issued by independent, qualified experts after (on-site or, if suitable, with virtual means) visits; EPCs must be provided at construction, major renovation, sale, rental, or contract renewal, with a validity of up to 10 years.
Simplified update procedures	Simplified procedures must be available for EPC updates after single element upgrades or when implementing renovation passports, supporting the decoupling of audit detail from standard EPC issuance for regulatory compliance.
Training courses	Member States must ensure assessors are properly qualified through education, training and formal certification; continuous professional development and re-certification are promoted to maintain standards and increase the number of auditors.

Table 5 – EPBD requirements related to Bulgaria’s measures

4.2.2 What has the country already done in relation to the measure(s)?

No significant actions have been reported to date regarding the first two measures (**Policy priority # 1** and **Policy priority # 2**). However, considerable progress has been made with the promotion of training courses for energy auditors (**Policy priority # 3**).

EPBD obligation or measure	Implemented in Bulgaria?	Notes	Deadline
EPC issuance and compliance obligations under Articles 19 and 20	No	EPC issuance still tied to full audit submission, limiting flexibility; digital, machine-readable EPCs not fully implemented.	29 May 2026
Calculation methodology and use of digital tools	No	Calculation methods and digital tools not fully aligned with EPBD technical and transparency requirements.	29 May 2026
Qualification and training of EPC assessors	Yes	Trained c. 2,000 auditors; ongoing university courses; training costs relatively high.	Ongoing

Table 6 – Implementation status of measures and obligations

4.2.3 What can be done?

To simplify the calculation methodology, Bulgaria could take inspiration from Hungary's new approach, introduced in 2023. Hungary's methodology follows regulatory standards, employing simplified methods for most buildings while applying more advanced techniques for complex constructions. It complies with the EPBD's requirement for calculations to be made on at least a monthly basis. The simplified method estimates energy performance on a monthly basis, while more complex buildings and systems utilise standard numerical methods or dynamic simulations.

Regarding the way in which EPCs are issued, the directive's flexibility allows Member States to separate the detailed energy audit process from the regulatory aspects of EPC issuance. Bulgaria can thus simplify matters by permitting virtual means on site visits where appropriate and by enabling the issuance of digital, machine-readable certificates aligned with EPBD Articles 19 and 20. This adaptation would make compliance more accessible and reduce costs without compromising the quality and reliability of EPCs.

Bulgaria has already made significant progress in promoting training courses for experts, but further efforts could focus on making courses more affordable. Continuous professional development and recertification, as recommended by EPBD Article 26, should also be institutionalised to maintain high assessment standards.

Taken together, these measures will position Bulgaria to comply with EPBD deadlines and to enhance the transparency, accessibility and quality of its national building energy performance certification system.

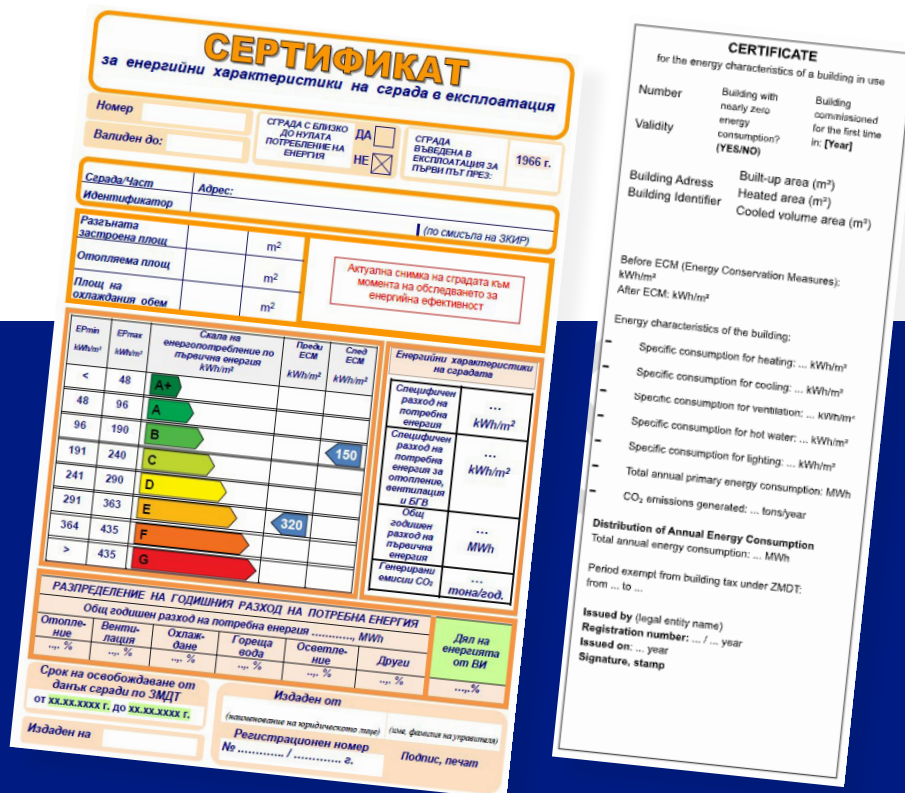


Figure 2 – Bulgaria’s EPC: front page layout

Below in Table 7 is an analysis of what Bulgaria will need to change on the first page of its EPC, in accordance with Annex V of the EPBD.

EPBD requirements (front page)	Present in EPC?	Present
Energy performance class	Yes	Need to rescale by 29 May 2026
Calculated annual primary and final energy use in kWh/(m ² .y) and kWh or MWh	Partially	Only specific consumption in kWh/(m ² .y) and total annual energy consumption for each use in kWh (heating, cooling, hot water etc.)
Renewable energy produced on site (% and total, main energy carrier)	No	Total annual energy consumption for renewable energy
Operational greenhouse gas emissions in kgCO ₂ /m ² /year	Partially	CO ₂ emissions shown; global warming potential not included
Calculated energy needs in kWh/(m ² .y)	No	Not indicated
Capacity to react to external signals (yes/no)	No	Not indicated
Heat distribution system capable for low or more efficient temperature levels, where applicable (yes/no)	No	Not indicated
Contact information of the relevant one-stop-shop	No	Only certifier's contact details are included; no mention of a one-stop-shop

Table 7 – Status of EPBD Annex V requirements for EPC front page layout

4.3 Proposed action plan and first steps

This section comprises two tables that list the stakeholders and their respective roles in EPC improvement (Table 8) alongside a suggestion of an action plan (Table 9). The good practices that can add value to the measures are also referenced. Further details on these good practices can be found in the EPBD.wise report “Energy Performance Certificates: Policy needs and best practices”^[3].

Stakeholder name	Category	Role	How to be involved
Sustainable Energy Development Agency, Ministry of Energy	Government/Energy experts	Implementing and managing new policies	Meetings, workshops, emails, developing content, validating policy, technical expertise, data provision, communications
Ministry of Regional Development and Public Works	Government	Implementing and managing new policies	Validating policy
Finance sector	Business/Government	Finance training; providing financial support for vulnerable households	Financing schemes
Bulgarian Construction Chamber	Association	Implementing and managing new policies	Meetings – involved in informal discussions
Chamber of Architects in Bulgaria	Association	Implementing and managing new policies	Meetings – involved in informal discussions
Chamber of Energy Auditors	Association	Implementing and managing new policies	Meetings – involved in informal discussions
Real estate sector	Business	Adapting the real estate market to the new policies	Integrate EPBD minimum standards
Independent energy consultants	Energy experts	Providing technical expertise	Developing content, technical expertise, data provision
Centre for Energy Efficiency EnEffect	Energy experts	Providing technical expertise	Developing content, technical expertise, data provision
Bulgarian Association for Construction Insulation and Waterproofing (BACIW)	Association of business organisations	Implementing and managing new policies	Meetings – involved in informal discussions
Sofia Technical University and other educational institutions (Technical University – Varna, Technical University – Ruse, Technical University – Gabrovo, University of Architecture, Civil Engineering and Geodesy – Sofia, University of Food Technology (UFT) – Plovdiv)	Academia	Organising training for auditors	Training, workshops

Table 8 – Bulgaria’s EPC policy improvement stakeholders and their roles

Priority	Objective	Key activities	Good practices	Responsible for policy implementation	Expected outputs	Timeline
Policy priority # 1 Simplify the calculation methodology and improve software	Make the calculation more user-friendly and auditable.	<ul style="list-style-type: none"> Adapt Hungary's simplified monthly method for typical building types. Create a core ('kernel') calculation model for common buildings. Develop and pilot a digital, machine-readable EPC tool integrated with the national database. 	Hungary – detailed methodology but effective implementation	Sustainable Energy Development Agency, Ministry of Energy	Simplified and interoperable EPC calculation method validated and in use	29 May 2026
Policy priority # 2 Change the way in which EPCs are issued	Reduce the cost and complexity of EPC issuance.	<ul style="list-style-type: none"> Draft legal revision allowing EPCs independent from full audits. Create validation checklist for simplified EPCs (including virtual means for visits). 	–	Sustainable Energy Development Agency, Ministry of Energy	Simplified EPC issuance procedure in place	29 May 2026
Policy priority # 3 Reinvest and enhance training for EPC auditors	Increase the number and quality of auditors; lower training costs.	<ul style="list-style-type: none"> Provide subsidised or low-cost training. Update training curricula with modular structure and online learning options. 	D5.1 – Sweden's EPCs Expert Training (Good Practice No. 1)	Sofia University and other educational institutions, Sustainable Energy Development Agency, Ministry of Energy	Affordable courses; more auditors newly trained or recertified	Continuous
Policy priority # 4 Improve the EPC database	Provide interoperable, accessible EPC data platforms.	<ul style="list-style-type: none"> Enhance technical specifications to define the worst-performing buildings. Integrate EPC, inspections, renovation passports, smart readiness indicator, and metered consumption data. Ensure stakeholder access to the database. 	D5.1 – Portuguese Quality Assessment System (Good Practice No. 2)	Sustainable Energy Development Agency, Ministry of Energy	Updated, accessible and representative EPC database enabling better policy targeting and public use	29 May 2026
Policy priority # 5 Implement a quality control system	Ensure representativeness and 90% statistical validity of issued EPCs.	<ul style="list-style-type: none"> Redesign the EPC data structure to include new EPBD indicators (greenhouse gases, renewables, indoor environmental quality). Migrate all existing EPC records to the new national database and anonymise sensitive information. Implement risk-based sampling and third-party verification. 	D5.1 – Portuguese Quality Assessment System (Good Practice No. 2)	Sustainable Energy Development Agency, Ministry of Energy	Reliable EPC data; improved confidence in assessments	29 May 2026
Policy priority # 6 Improve public information, perception, and the quality of EPC recommendations	Strengthen communication, trust and user understanding of EPCs to increase uptake and support renovation actions.	<ul style="list-style-type: none"> Establish one-stop-shops and online helpdesks. Link EPC recommendations with available financial schemes and one-stop-shops. Conduct a national communications campaign combining media, social networks and local events to promote EPC value and reliability. 	–	Sustainable Energy Development Agency, Ministry of Energy	Enhanced EPC visibility and trust; improved understanding of recommendations; measurable increase in public engagement.	Continuous

Table 9 – Bulgaria's proposed action plan

Timeline for implementation of measures under the EPBD

The deadlines indicated for each priority reflect the timetable for transposing and implementing the new EPBD. The more structural measures are aligned with the deadline of 29 May 2026 set out in the EPBD for the full implementation of the new requirements on certification and databases.

Priorities that depend on capacity-building and behavioural change are defined as ongoing actions, as they require continuous updating of skills, regular communication and progressive adjustment to regulatory and market developments.

4.4 Monitoring and evaluation of EPC schemes

Effective monitoring, reporting and evaluation are essential to ensure that EPC schemes fulfil their central role within the EPBD. As emphasised in the EPBD.wise report “An Integrated MR&E Framework for Effective EPBD Implementation”, EPCs are not merely compliance documents but pivotal datagenerating instruments for tracking progress in renovation, energy performance, zeroemission pathways, and policy coherence across the building sector. Key points for EPC schemes include:

Monitoring: Ensuring that EPC data – including energy classes, primary energy indicators, operational greenhouse gas emissions, recommendations and building characteristics – are continuously collected, validated and fed into national databases. These databases must integrate EPCs with inspection data, renovation passports, the smart readiness indicator, and measured building consumption where available.

Reporting: Member States must ensure transparent, harmonised annual reporting to the national building performance database and the EU Building Stock Observatory. This allows EPCbased indicators to inform NBRPs, MEPS implementation, ZEB uptake, and financial planning at national and EU levels.

Evaluation: Evaluation checks the extent to which EPCs are providing actionable insights. The EPBD.wise monitoring, reporting and evaluation framework recommends that this should include:

- the quality and statistical validity of issued EPCs (quality control);
- the effectiveness of EPC recommendations in triggering renovations; and
- the impact and support provided by EPC schemes on policy objectives such as MEPS and trajectories compliance, energy poverty alleviation, financing schemes and progress toward ZEBs.

Best-practice examples from other focus countries include the following:

Portuguese quality assessment system: Ensuring the quality and reliability of EPCs through rigorous verification processes, qualified experts meticulously examine data and information recorded by EPC assessors to ensure accuracy and compliance with established criteria and methodologies. The Directorate General for Energy and Geology (DGEG) promotes confidence among stakeholders (including building owners, real estate agents and policymakers) by ensuring the reliability of the EPC database.

The Portuguese energy agency ADENE's approach involves a systematic review of EPCs to verify the correctness of energy performance indicators, the appropriateness of the selected calculation methodologies, and compliance with national and EU regulations. This system's effectiveness is enhanced by close and effective communication with experts, focusing on error prevention rather than penalties, through proactive monitoring and the accompaniment of assessors during building visits. This could be a good approach for Bulgaria to implement, as it requires quality control and a database that reflects the real state of the building stock. However, it does raise issues such as how to guarantee reliability and independence, as well as increased costs.

Ireland's quality assurance risk-based approach: This provides guidelines and performance criteria to assessors, ensuring their competency and upholding the credibility of EPCs. Continuous monitoring and stakeholder engagement enhance EPC quality control. The Irish system involves comprehensive checks on EPC data, assessment methodologies, and compliance with national and EU standards. Feedback mechanisms have been established to improve the performance of assessors and maintain the accuracy of the EPC database. As with the previous good practice, Bulgaria could significantly benefit from this approach to improve the quality control of its EPCs and database.

Portugal's EPC financing: This serves various stakeholders and objectives by providing tailored recommendations, taxation benefits and financial incentives to promote energy efficiency initiatives. Portugal's EPCs play a pivotal role in incentivising renovation actions, facilitating access to funding schemes and supporting comprehensive energy efficiency improvements. By integrating various policy objectives into the EPC framework Portugal addresses multiple needs, including EPC recommendations, database management, and the integration of other indicators and schemes. Using EPCs as a gateway to financing could be a way of improving public perception in Bulgaria. With this approach, Bulgaria could benefit from an improved database that is more representative of the building stock.

United Kingdom EPC quality control: UK EPCs have quality control guidelines to ensure accuracy and consistency. Energy assessors are required to maintain comprehensive records for each EPC they produce. These records should include data files or software data collection forms that detail the information used in the EPC calculation, allowing quality assurance assessors to verify the accuracy of each data entry stage associated with the Simplified Building Energy Model or Dynamic Simulation Model. Additionally, design documents such as floor plans, elevations and sections should be retained to facilitate EPC recalculations if necessary. Site notes, whether in paper or electronic format, are also essential components of the documentation. For Bulgaria, this good practice could help in providing reliable and standardised data on a building's energy performance, which is a significant gap in the country's current EPC system. Another key opportunity is to increase consumer and stakeholder confidence by making EPCs a trusted tool for property owners, tenants and investors.

CONCLUSIONS, RECOMMENDATIONS AND NEXT STEPS

A comparative analysis of the policy needs across the focus countries enables a clearer understanding of the context, preparing the ground for replication of good practices and highlighting areas for each country to build upon.

The next table is an update of a similar summary exercise that was published in the EPBD.wise report on “Energy Performance Certificates: Policy needs and best practices”^[3], including the results of recent interactions with focus countries and additional data provided.

Intervention type	Policy needs	Bulgaria	Greece	Hungary	Poland
Technical/Legislative and regulatory	EPC rescaling and calculation methodology	Yes	Yes	Yes	Yes
Technical/Legislative and regulatory	EPC quality control	Yes	Yes	Yes	Yes
Information and perception	EPC communication/perception	No	Yes	Yes	Yes
Technical	EPC databases	Yes	No	Yes	No
Technical/Information and perception	EPC recommendations	No	No	Yes	Yes
Technical/Legislative and regulatory	Integration of other indicators/schemes with EPC	No	Yes	Yes	Yes
Technical	Training and auditor capacitation	Yes	Yes	No	No

- Policy needs **identified as priority** from the start of the EPBD.wise process
- Policy needs that have **shifted priority** between the *EPC Policy needs and best practices* and the *EPC Policy Guidelines*
- Policy needs that were not identified as priority

Table 10 – Policy needs categorised by intervention type, per country

The main priorities for all countries included are related to the technical, legislative and regulatory, and information and perception aspects of EPCs. More specifically, policy needs in all the countries concern the methodology for rescaling and calculating EPCs, quality control mechanisms, and communication and perception.

The summary table above also shows that although most countries did not identify core issues regarding the methodology for rescaling and calculating EPCs as policy needs in the first step, these aspects were subsequently highlighted when the requirements of the EPBD were analysed. This also reflects the importance of these two major changes in the EPBD and the fact that, in most cases, rescaling and new mandatory indicators for calculating EPCs and defining MEPS and national trajectories will require significant methodological changes. This should be seen as a trigger point for other interventions, for instance in setting up improved databases and to boost wider communication strategies. These conclusions and common priorities define a first framework for replicating the policy guidelines in additional countries.

Several recommendations emerge for Bulgaria based on the analysis, particularly regarding decoupling the energy audit process from the issuance of EPCs by separating the detailed energy audit from the issuance of the regulatory certificate, simplifying the process through virtual means in visits where appropriate, and enabling digital, machine-readable certificates. An independent quality control system should be implemented, ensuring that at least 90% of issued EPCs are valid with 95% statistical confidence, accompanied by clear guidance on penalties for infractions. It is essential to reinvest in and strengthen EPC auditor training with more accessible courses. From a technical perspective, the EPC database should be enhanced to identify the worst-performing buildings, and access to it for building owners, tenants, policymakers and stakeholders such as NGOs and academic institutions should be guaranteed through user-friendly online platforms. The calculation methodology should also be simplified and the software improved by drawing on lessons from updated approaches in neighbouring countries such as Hungary; and the quality of EPC recommendations should be improved, making them specific, actionable, and linked to one-stop-shops. Finally, public information and perception must be improved by creating one-stop-shops and effective communication strategies.

A key area of good practice in Bulgaria is the focus on auditor capacitation. Ongoing investment in the training and certification of auditors is essential to maintain high standards in EPC issuance and to foster trust in the system. Expanding these training programmes, incorporating the latest technical updates and best practices, and ensuring lower costs for participants, will help to future-proof the workforce and improve the overall quality of EPC assessments.

Bulgaria's proactive measures – such as improving the EPC database and implementing a quality control system – not only support transparency but also facilitate better communication with stakeholders and the general public.

The country's next steps should include further development of communication strategies to clearly convey methodological changes and the benefits of the EPC reforms. Bulgaria should also consider collaborative efforts with other countries participating in EPBD, wise to share insights and refine its strategies further. By building on its strengths, Bulgaria can improve the implementation of EPC policy needs and set a benchmark for good practice in the region in certain areas.

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