



The Coalition for
ENERGY SAVINGS



**Coalition response to the
public consultation on the revision of the
Energy Performance of Buildings Directive**

June 2021

Consultation on the revision of the Energy Performance of Buildings Directive 2010/31/EU

Fields marked with * are mandatory.

Introduction

As announced in the [European Green Deal](#), the Commission adopted on 14 October 2020 a strategic Communication "[Renovation Wave for Europe - greening our buildings, creating jobs, improving lives](#)". It contains an action plan with specific regulatory, financing and enabling measures for the years to come and pursues the aim to at least double the annual energy renovation rate of buildings by 2030 and to foster deep renovations. It is expected that mobilising forces at all levels towards these goals will result in 35 million building units renovated by 2030.

The [Renovation Wave](#) confirms that the existing legislative measures on buildings will neither suffice to achieve the increased EU 2030 climate target of at least 55% emission reduction target and the planned increase in the ambition for energy efficiency, nor the 2050 climate neutrality objective. Therefore, the Renovation Wave communication announces a revision of the Energy Performance of Buildings Directive 2010/31/EU (EPBD) together with a number of areas of legislative and non-legislative reinforcement in relation to building renovation and decarbonisation of buildings. The EPBD is the cornerstone of European legislation in the area of energy performance of buildings. It aims at accelerating the transformation of the EU building stock into a highly energy efficient and decarbonised building stock by 2050.

The Renovation Wave already indicated some specific aspects which will be addressed in the revision of the EPBD, namely: the phased introduction of mandatory minimum energy performance standards for all types of buildings (public and private), an update of the framework for Energy Performance Certificates, the introduction of Building Renovation Passports and the introduction of a 'deep renovation' standard in the context of financing and building decarbonisation objectives. The requirements for new buildings and measures fostering sustainable mobility are also considered to be updated in line with the enhanced climate ambition of the European Green Deal and the Climate Target Plan 2030. This includes addressing resource efficiency and circularity principles in order to reduce whole lifecycle emissions, digitalisation in design, construction and operation of buildings, climate resilience and health and environmental requirements, as well as accessibility for persons with disabilities, and energy poverty, requires consideration. More information is provided in the [Inception Impact Assessment](#).

This questionnaire is part of a larger stakeholder consultation which will feed into the Commission's work on the revision of the EPBD. It builds upon the results from the very extensive and in-depth public consultation for the Renovation Wave that took place between January and September 2020, whose results have been assessed in a [dedicated report](#).

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
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- Latvian
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- Polish
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- Slovenian
- Spanish
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* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation

- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

* Surname

* Email (this won't be published)

* Organisation name

255 character(s) maximum

* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

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Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

* Country of origin

Please add your country of origin, or that of your organisation.

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- Djibouti
- Libya
- Saint Martin
- Åland Islands
- Dominica
- Liechtenstein
- Saint Pierre and Miquelon

- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
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- Benin
- Bermuda
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Lithuania
- Luxembourg
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname

- Bhutan
- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Myanmar /Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine

- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

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Part A. Planning and policy instruments

Decarbonisation of buildings

Question 1. The [long-term decarbonisation strategy](#) has introduced the concept of zero emission buildings by 2050, in view of achieving carbon neutrality in the long term. Do you agree that such a novel concept should be defined in the EPBD?

- Yes
- No, it is not needed in the EPBD
- No opinion

Question 2. Long-Term Renovation Strategies (LTRS) set the vision, roadmap, concrete policy measures and actions, and dedicated financing mechanisms to decarbonise national building stocks by 2050. The [first 13 LTRS](#) submitted have been assessed by the Commission. Under the existing legal framework the LTRS are due every 10 years, with a possibility for updates as foreseen under the Governance Regulation.

Should the EPBD provisions on the Long Term Renovation Strategies be modified?

- Yes
- No

* If yes, how?

1000 character(s) maximum

Member States (MS) should update their LTRS by no later than 2024 to deliver on higher 2030 efficiency and climate targets. LTRS ambition should reflect the EU climate neutrality goal and ensure that an annual deep renovation rate of 3%, either in one or in several stages, is achieved by 2030. LTRS should enshrine mandatory milestones to renovate the building stock. LTRS should be linked and better integrate requirements from EED Art 5 and 14, EPBD Art 9 and new provisions on Minimum Energy Performance Standards (MEPS). The Commission (COM) should provide MS with a template for LTRS (with common measurable progress indicators, and milestones) to simplify drafting, reporting, monitoring and for better comparison. The COM should be tasked to give recommendations to MS on how to improve LTRS and undertake a gap-filling exercise. Finally, actions to mitigate energy poverty and ensure citizen and cities participation in the development and implementation of the LTRS should be reinforced.

Question 3. Should the monitoring of the objectives identified by MSs in their LTRS be strengthened?

- Yes
- No

If yes,

- Through a specific monitoring tool to be developed by the Commission
- By requiring a 5-year revision of the LTRS
- By developing a common template and requesting specific data and indicators, in order to make the information provided by Member States more comparable
- By requesting more data, especially on greenhouse gas emission effects, to allow assessing the contributions to the EU climate policy targets
- By linking the LTRS to other policies (heating and cooling, renewables, products, etc.)
- Other - please specify in comment box
- No opinion

* Please specify:

500 character(s) maximum

LTRS should be updated every 5 years, in accordance with the NECPs update. Additionally, the monitoring of progress under the current and upcoming LTRS is crucial because of EU recovery funds, including those of the Recovery and Resilience Facility (RFF), are being spent at the national level on building renovations and, ideally, in line with the national priorities of the LTRS. This monitoring of progress should be transparent and accessible to all stakeholders.

Question 4. Which measures would you add in the EPBD to further support district and city authorities to increase energy efficiency in buildings and to accelerate the rate of replacement of boilers by carbon free ones based on renewable energy?

1000 character(s) maximum

Resource efficiency and climate resilience in buildings renovation

The European Green Deal points to energy and resource efficiency. Following this, the new [Circular Economy Action Plan \(CEAP\)](#) adopted in March 2020 acknowledges that reaching climate neutrality by 2050 requires highly energy and resource efficient buildings equipped with renewable energy, considering life cycle performance and a more efficient use of resources for building renovation and construction. The Renovation Wave equally sets our actions in this regard, such as the development of a 2050 whole life cycle performance roadmap to reduce carbon emissions from buildings.

Question 5. Do you think a revised EPBD should include measures to report on whole life-cycle carbon emissions from buildings (manufacturing and construction, use and end of life)?

- Yes
- No, the EPBD is not the right tool for this
- I don't know/ No opinion

Comment:

500 character(s) maximum

Question 6. Should the EPBD require that the likely impacts of climate change are taken into account in the planning of new buildings and major renovations?

- Yes
- No, the EPBD is not the right tool for this
- No opinion

Question 7. As announced in the Renovation Wave, the Commission will develop a 2050 whole life-cycle performance roadmap¹ to reduce carbon emissions from buildings and advancing national benchmarking with Member States. How do you think the EPBD could contribute to this roadmap?

1000 character(s) maximum

¹The Roadmap is one of the actions foreseen in the Renovation Wave Communication (COM(2020) 662 final) to make the construction ecosystem fit to deliver sustainable renovation.

Nearly zero-energy buildings (NZEB)

Question 8. The EPBD requires all new buildings from 2021 (public buildings from 2019) to be nearly zero-energy buildings (NZEB). According to [Article 2](#) "nearly zero-energy building" means a building that has a very high energy performance, as determined in accordance with Annex I. The nearly zero or very low amount of energy required should be covered to a very significant extent from renewable sources, including sources produced on-site or nearby. Do you think that the current definitions for NZEBs are ambitious enough to contribute towards a fully decarbonised building stock?

- Yes, the current definition is ambitious enough
- No
- No opinion

If no,

- The current definition should be updated to put clear limits to energy use and minimum levels of renewables and incorporate green-house gas emissions targets
- The current definition should be replaced by a definition of "zero emissions buildings"
- Other - please specify in comment box

* Please specify:

500 character(s) maximum

The definition of NZEB does not provide maximum thresholds of energy use; it should set clear limits for building's energy use with the remaining amount of energy fully covered by renewables in line with the climate neutrality objective. The definition should be made consistent and harmonised across countries, while leaving flexibility to adapt to different climate zones. The revision should introduce a common EU methodology for calculating the required performances of NZEB.

Question 9. Numeric thresholds or ranges for NZEBs are not defined in the EPBD. While this allows Member States to set their NZEB levels taking into account their national context, it also results in widely differing definitions from country to country. Is a more harmonised definition of NZEB necessary?

- Yes
- No, it is not necessary
- I don't know/ No opinion

If yes,

- Minimum thresholds for primary energy use in the building's operation should be defined in the EPBD for different climate zones
- Minimum renewable energy sources share should be introduced in the EPBD for different climate zones
- Both minimum thresholds for primary energy use and renewable energy sources share in the building's operation should be introduced in the EPBD for different climate zones
- Life-cycle greenhouse-gas performance should also be included
- Other - please specify in comment box

* Please specify:

500 character(s) maximum

In line with the energy efficiency first principle, a NZEB definition should clearly define a maximum threshold of energy use, based on Commission 2016 benchmarks, for the different types of new buildings' typologies with the remaining amount to be fully covered by renewable energy, which includes the energy produced by individuals, jointly acting renewables self-consumers and renewable energy communities.

Deeper building renovations

Question 10. Deep renovation is understood to be a renovation that should generate at least 60% energy savings, whether carried out in a single stage or in a number of staged renovations. In your view, would it be beneficial to provide a legal definition of "deep renovation" in the EPBD?

- Yes
- No, a definition would add further complexity
- I don't know/ No opinion

If yes,

-

The definition should relate to energy savings only

- The definition should relate to energy savings also expressed in terms of greenhouse gas emissions related to the use of energy
- The definition should relate to both operational and embodied greenhouse gas emissions covering emissions from the full life-cycle of buildings
- The definition should cover broader aspects that have an impact on the quality of renovations, such as health and environmental standards, accessibility for persons with disabilities, climate resilience or others - please specify in comment box
- Other - please specify in comment box

* Please specify:

500 character(s) maximum

A legal definition of “deep renovation” will provide clarity to all actors of the renovation and financing sector. The definition should clarify the holistic nature of such interventions and primarily relate to energy savings while taking into account the broader decarbonisation objectives. If a legal definition of “deep renovation” is introduced in the EPBD, its objective (i.e. when will it be used) should be clarified, and it should be linked with MEPS and the Building Renovation Passport.

Mandatory minimum energy performance standards (‘MEPS’)

Mandatory renovation/minimum performance requirements are one of the most impactful measures for increasing the rate of building renovation and have already been explored and implemented in some Member States. Their aim is to firm up investors’ expectations by setting a path for the improvement of the energy performance of different classes of buildings thus gradually increasing the average performance of the national building stock. Mandatory renovation/minimum performance requirements could be introduced progressively and target specific segments as a priority.

Question 11. In your opinion, should the EPBD introduce mandatory minimum energy performance standards to be applied in the EU, subject to specific conditions to be determined?

- Yes
- No
- I don't know/ No opinion

Please explain your answer:

1000 character(s) maximum

MEPS are key to step up efforts in building renovation, as showed by existing experiences in several countries worldwide, including EU MS. Their introduction must be aligned with climate neutrality. MEPS should cover all building segments, in particular worst-performing ones, including the residential sector to improve poor households’ living conditions and tackle energy poverty. MEPS should be a key component of

strengthened and climate-proof LTRSs, providing clarity and predictability on the end goal and role that the different buildings and their building systems have in achieving the climate targets. They must be accompanied by a broad package of measures to support and empower citizens, such as adequate financing tools, precise information, opportunity for participation, practical advice and technical assistance. In addition, MS should put in place social safeguards and measures (such as subsidized schemes e.g. using ETS revenues) to ensure no risk to housing/rent affordability.

Question 12. What type of minimum energy performance standards do you consider most appropriate?

- Building-level performance standards, focusing on the overall energy efficiency of the building (for example linked to an Energy Performance Certificates ('EPC') class or the energy codes, specific energy consumption, another carbon metric, etc.)
- Building element-level performance standards, setting specific minimum levels of building elements (for the envelope and/or the technical building systems including heating and cooling)
- Minimum quality standards, including also other aspects beyond energy performance, such as thermal comfort - please specify in comment box
- Others - please specify in comment box
- I don't know / No opinion

Please explain your answer:

1500 character(s) maximum

Minimum energy performance standards set at building level can drive comprehensive building renovations and allow to better tailor the renovation intervention to each specific building and its inhabitants. To deliver on holistic deep renovations achieving a certain level of performance by an end date (or a certain class of the EPC), the Building Renovation Passport (BRP) can also be integrated as a useful complement to define the roadmap and sequencing of the different renovation interventions.

Question 13. In your view, for which category of buildings should mandatory minimum energy performance standards be applied?

at most 2 choice(s)

- All residential and non-residential buildings
- All residential buildings being sold and/or rented out
- All residential buildings
- A subset of residential buildings to be defined (please specify in comment box)
- All non-residential buildings
- All non-residential buildings being sold and/or rented out
-

A subset of non-residential buildings to be defined (please specify in comment box)

- All public buildings (with a total floor area of more than 250 m2)
- Only to worst-performing buildings irrespective of their ownership and use profile
- Other (please specify in comment box)
- I don't know / No opinion

* Other? Please specify:

500 character(s) maximum

MEPS should cover the whole building stock. Leaving out the residential sector means not tackling energy poverty and the wider social benefits linked to renovations. MEPS should target buildings of energy poor households, including low income tenants, low-income homeowners or those living in social housing. For public buildings, MEPS should be carefully coordinated with the revision of Art.5 EED, ensuring complementarity and synergies, as well as avoiding overlaps.

Question 14. Do you think that mandatory minimum energy performance standards should be introduced:

- Yes
- No, I don't believe that mandatory minimum standards are appropriate
- I don't know / No opinion

If yes,

- Linked to specific moments in the life cycle of a building, for example a transaction (e.g. the sale, rental or lease of a building)
- On the basis of a timetable for a staged approach to achieve specific energy performance levels
- Other - please specify in the comment box

* Please specify:

500 character(s) maximum

A compliance deadline, with progressive compliance milestones, should be the ultimate goal in designing MEPS, ensuring a reliable timetable for their introduction. This timeline should be set in line with the climate neutrality objective and the goal of achieving a highly energy efficient and decarbonised building stock. Trigger points linked to the buildings' life cycle (e.g. sale, rent or renovation) should not be an alternative, but rather be complementary to facilitate earlier compliance.

Question 15. In your view, what is the most important element that could guarantee a successful roll-out of mandatory minimum energy performance standards?

- The availability of financial support to buildings owners
- The correct identification of the worst-performing buildings
- The presence of a stable legal framework
- The availability of adequate workforce capacity to do renovations
- The availability of emerging technologies facilitating rapid renovation works
- Other - please specify in comment box
- I don't know / No opinion

* Please specify:

500 character(s) maximum

To be successful, MEPS should be based on a stable legal framework announcing deadline and ambition in advance, accurately monitored by MS, and mutually reinforcing tools to overcome the non-regulatory barriers to renovations. Financial incentives, dedicated funding and social safeguards for energy poor are key to address upfront costs and prevent distributional impacts. One-stop shops and local/regional facilitators providing technical assistance are also crucial to support demand creation.

Public buildings

Question 16. In your view, which of the following regulatory measures should be envisaged to increase the rate and depth of renovation of public buildings in a sustainable manner?

- Introduction of more stringent minimum energy performance requirements for renovation of public buildings
- Introduction of minimum energy performance standards in public buildings, with an obligation to achieve progressively more ambitious levels
- Introduction of life cycle aspects in the design, construction and operation of refurbished public buildings (e.g. circular approaches like extension of service life, adaptability and flexibility, reuse and recycling of materials)
- Introduction of climate resilience aspects in the design and operation of new and refurbished public buildings
- Other - please specify in comment box
- I don't know / No opinion

Electromobility

Question 17. The provisions on electromobility in Article 8 of the EPBD targeting the installation of recharging points in car parks adjacent to buildings were recently introduced. With the strengthened climate ambition and the increased incentives towards the uptake of electric cars but also with the strong increase in (electric) bike /cargo-bike use, do you think there is a need to strengthen the requirements?

	Yes	No	I don't know/ No opinion
For new residential buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
For refurbished buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
For new non-residential buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
For refurbished non-residential buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Question 18. In your view, what kind of requirement would be needed?

	Yes	No	I don't know/ No opinion
The installation of recharging points to support smart charging, allowing to monitor, control and optimise energy usage when recharging electric vehicles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The inclusion of provisions for recharging points for vehicles other than cars (e.g. e-bikes)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
To give owners of an apartment in multi-dwelling buildings the right to install a recharging point for their parking spot in the shared parking garage (right to plug)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other measures? Please specify:

500 character(s) maximum

To ensure buildings are fit for e-mobility, the scope of the EPBD should be extended to existing buildings (both residential and non-residential) with the objective to make them all EV-ready (i.e. cabled) by 2035 alongside with intermediate targets. There should also be minimum harmonised requirements for the deployment of charging infrastructure in existing buildings.

Question 19. Are you aware of administrative barriers preventing the deployment of charging points in buildings in your country?

- Yes
- No

* If yes, please elaborate:

1000 character(s) maximum

To ensure EV drivers can easily install chargers where it is most needed, a harmonised EU “right to plug” should be established into law, removing administrative hurdles like lengthy approval procedures for EV charging in buildings or collective action problems (e.g split incentives between renters & owners). Having an EV charger installed should be as simple as an internet or phone subscription. At work, employees should have the right to a dedicated/shared charger.

To ensure the electricity grid can absorb the increase of e-mobility, it is essential that EVs are charged at the best moment in time both for the EV driver and the grid – i.e. when electricity demand is low, or renewable energy supply is high. Barriers to smart charging can only be overcome if charging systems are interoperable with any car and any building energy management system, through harmonised standards. Ultimately, this will ensure a stable and more renewable electricity grid.

Part B. Information provision and energy performance certificates

Energy performance certificates (EPCs)

Energy performance certificates (EPCs) is an instrument aimed at informing building owners, tenants and users about the cost of heating and cooling, savings that investments would bring and offer benchmarks to compare similar buildings. EPCs are also needed to link preferential financing conditions to quality renovations. Under the existing EU regulatory framework, EPCs are compulsory for buildings being built, sold or rented and the energy class of the EPC must also be shown in advertisement media. They are also compulsory for buildings over 250 m² occupied by a public authority and frequently visited by the public. EPCs can also be used to plan policy or to monitor the performance of measures when these are implemented. However, the coverage of such certificates strongly differs across Member States.

Question 20. Do you agree that the framework for Energy Performance Certificates should be updated and their quality improved?

- Yes
- No, it's not necessary
- Other - please specify in the comment box
- I don't know / No opinion

Question 21. Is harmonization of EPCs needed to accelerate the increase of building performance and how can it be achieved?

- Yes, it is needed and can be achieved by introducing a common template
- Yes, it is needed and can be achieved by other means - please specify in comment box
- Yes, it is needed but some national specification should be retained - please specify in comment box
- No, harmonisation is not needed
- I don't know / No opinion

* Other means? Please specify:

1500 character(s) maximum

Harmonisation of both the design and calculation methodology of EPCs is necessary to increase their credibility and allow comparability across the EU. In order to ensure a high degree of accuracy and reliability of EPCs, the quality of surveys must be raised and complemented by on-site assessments carried out by certified professionals. More harmonised, comparable and solid asset-based calculations should be progressively supplemented with real performance metrics.

Please explain your choice:

500 character(s) maximum

Question 22. How would you rate the following elements in order to improve the quality and impact of EPC requirements?

- 0 – No opinion
- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Important
- 5 – Very important

	0	1	2	3	4	5
Improve training for independent experts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Develop professional qualification schemes or labels for installers of technical buildings systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve quality control mechanisms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Include further information on estimated costs, energy savings or cost savings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Include information on non-financial benefits such as increased comfort and climate resilience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tailor the recommendations towards deep renovations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Develop an accessible EPC database with further information on the EPC, explanation of the different terms, benchmarks and comparison with similar buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Increase the number of mandatory indicators to include: greenhouse gas emissions, generation of renewable energy, breakdown of different energy uses (e.g. heating, ventilation, lighting, etc.) or type of systems installed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Increase the interoperability with other tools such as digital building logbooks, SRIs and renovation passports.



Comment:

500 character(s) maximum

Question 23. Which elements are the most important to ensure compliance with EPC requirements?

at most 3 choice(s)

- Provision of detailed guidelines for EPC (including use of visual identity, common logo, recommended indicators)
- More stringent penalties in case of non-compliance, for instance in relation to the advertisement of sales or rent of buildings
- Extend liability to all the market actors involved in the selling/renting of properties
- Making EPCs mandatory to access any financial incentive targeting buildings renovations
- Accessible EPC database with benchmarks allowing comparison with similar buildings
- Introduce information flow and cross-checks between EPC databases and other databases containing information on buildings or products (e.g. national building registry or cadastre, energy labelling database for products, digital building logbooks, other national statistics, etc.)
- Other measures - please specify in comment box

* Please specify:

500 character(s) maximum

The EPC coverage is currently too limited and must be expanded, especially if MEPS are to be based on the achievement of a certain EPC class. In that context, all buildings could be required to have an EPC. This, in conjunction with an accessible EPC database, would allow a good picture of the EU building stock. More frequent quality controls should also be included and the role of EPCs to direct financial support should be reinforced.

Smartness of buildings and wider modernisation

Question 24. The objective of the Building Renovation Passport (BRP) is to provide a long-term, step-by-step renovation roadmap for a specific building based on quality criteria, following an energy audit, and outlining relevant measures and

renovations that could improve the energy performance and the quality of the building. The BRP schemes and initiatives in the EU are diverse and most of them have not reached their full potential, while some are still at the research phase. Which measures do you think could best support the uptake of a building renovation passport?

at most 3 choice(s)

- Guidelines and best practice exchange on how the BRP can support the objectives of the Long Term Renovation Strategy
- National/regional communication campaigns to increase awareness of the BRPs
- Training of energy experts
- Making funds, such as the European Energy Efficiency Fund or ELENA, available to the Member States for BRP development and implementation
- Guidelines on how to support and enable banks to offer a favourable interest rate on loans/mortgages which are linked to a BRP
- Legal requirement to be introduced in the EPBD review for the Commission to develop a common template for BRPs
- Legal requirement to be introduced in the EPBD review for the Commission to develop a voluntary BRP scheme
- Legal requirement to be introduced in the EPBD review stating that BRP becomes mandatory for certain building types (replicating the EPC regulations, buildings for sale, etc.) after 2030.
- No measure is necessary
- Other - please specify in comment box
- I don't know / No opinion

* Other? Please specify:

500 character(s) maximum

The EPBD revision should include a legal requirement to introduce the BRP which should happen before 2030.

Question 25. The Commission has created a uniform scheme for Smart Readiness Indicators in the EU. The scheme is currently voluntary, and has the potential to promote the digitalisation of buildings and the role that buildings can play in smart sector integration.

What would you consider to be the best ways in which the Smart Readiness Indicator could support the role of buildings in smart sector integration?

- Continue with the current framework and focus on its implementation on a voluntary basis
- Introduce SRI as mandatory requirement for non-residential buildings
- Introduce SRI as mandatory requirement for all new buildings
- Introduce SRI as mandatory requirement for all buildings
- Support the development of links between the SRI and other schemes (e.g. EPCs, building renovation passports, building logbooks, etc.)
- Other - please specify in comment box
- I don't know / No opinion

Question 26. Do you think that the EPBD can contribute in making a wider range of building-related data on the energy performance of a building and its related construction and renovation works, across its life cycle, available and accessible? (note: building related data can come from a variety of sources: SRI, logbook and EPCs, Level(s), grant schemes, building permits, digital models)

- Yes
- No
- No opinion

Please explain your answer:

1000 character(s) maximum

Part 3. Enabling more accessible and affordable financing for building renovation

Question 27. The Renovation Wave Communication identify the need of sensible additional investments in building renovation in order to double the yearly renovation rate across Europe, decarbonise the building stock and achieve 2030 energy efficiency targets. Public financing alone will not be enough to achieve these objectives; it will be seminal to enable more accessible and affordable private financing options for building renovation. How would you rate the following possible forms of support to renovations?

0 – No opinion

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Important
- 5 – Very important

	0	1	2	3	4	5
Public guarantee for commercial banks to offer low-interest loans for renovation of worst performing buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Direct grants support to low-income citizens living on worst performing buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
ESCOs financing of low-interest loans payback through on-bill recovery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Tax incentives during a period of time to provide additional economic support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
One stop shops for all types of renovation advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Support the development of energy efficiency mortgages and other innovative financing options that will enable private financing institutions to offer low-interest loans based on the improvements of energy performance of buildings or on building renovation passports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Technical assistance facilities supporting the development of building renovation project for the building stock of local and regional authorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Other kind of support? Please specify:

500 character(s) maximum

There is no one-size-fits all financing solution to upscaling energy renovation, it is necessary to mobilize financing from all sources and provide technical and project development assistance, tailored to each category of consumer. Information campaigns should be included and deployed across the lifetime of renovation programmes planned by MS. In coherence with the Renovation Wave, MS should develop fully subsidized low-income renovation programmes and support citizen-led renovation projects.

Question 28. Deep renovations do not always result in a rapid return on investment. In your opinion, how public financial incentives can be used to stimulate deeper renovations across the EU?

1000 character(s) maximum

Public financial incentives could be in priority used as non-refundable subsidies for vulnerable and low-income consumers, and as an incentive for those having financial means. They could act as guarantee funds for commercial banks to de-risk EE investments and ease loans and mortgages conditions for consumers. Introducing investment priorities and reforms under the 'Flagship Renovate' could help MS access ready-to-

use financing, which coupled with reforms could address gaps within the energy renovation value chain. Technical Assistance and Project Development Assistance are crucial in this endeavour, beyond creating a projects pipeline, the Technical Support Instrument can help MS creating the right reforms in strategic policy areas which could ensure that occupants' financial capacities match their needs when it comes to deep renovation. Therefore, deep renovations, either in one or in several stages, should be prioritised by public financial incentives.

Question 29. Do you think that funding support to renovations should be linked to the depth of renovation?

- Yes
- No, it is not necessary
- I don't know / No opinion

If yes,

- The intensity of funding should depend on the depth of renovations based on the Energy Performance Certificates ('EPC') class achieved
- All public funding scheme for private building renovation should consider a mandatory minimum requirement of at least 60% energy savings
- All public funding scheme for private building renovation should consider a mandatory minimum requirement of at least 30% energy savings
- Other - please specify in the comment box

* Please specify:

500 character(s) maximum

The options may be too simplistic. A 30% reduction in energy needs may be limiting and result into losing the multiple benefits of ambitious energy renovations. Few EPC schemes exist where requiring a certain label after works is adequate and some buildings can't achieve 60% savings. The logic should be that the more holistic and ambitious the renovation in terms of energy savings is (or the better aligned with long-term objectives thanks to a BRP), the better the financing package's conditions.

Question 30. In your view, which of the following measures would help to further support the renovation of public buildings?

- Technical assistance for public authorities (national, regional, local) to design and implement comprehensive renovation programmes (ELENA model), including linkages other related climate-resilience policies in urban and rural areas
- Enhanced deployment and capacity building for energy performance contracting in the public sector (including accounting rules)
-

Financial incentives to support companies providing energy performance contracting

- Public-private partnerships to inform and assist efforts of public authorities for building renovation and ease access to financing
- Framework contracts at national, regional or local level with the specific objective of renovating public buildings
- Other measures - please specify in comment box
- I don't know/ No opinion

* Please specify:

1500 character(s) maximum

When it comes to boosting energy renovation's rates and depth of public buildings, one should first look at ways to provide capacity building to public administrations, for instance via high-quality technical assistance and advisory services. These elements, along with different financial options, could be provided by one-stop shops designed for public authorities and their existing buildings. We regret to see that, even though these one-stop shops have the potential to strategically link all the elements listed above, they are missing from the list. Public-Private partnerships such as one-stop shops for public authorities and buildings can act as procurement agencies. They can simplify the tendering process; link public authorities with qualified installers, provide information about solutions as energy performance contracts (covering both technical audits and the setting up of a financial plan), which allow to cut energy bills and CO² emissions; track performance of the renovation works by monitoring EPCs; and 'bundle' public buildings from different municipalities, which may support them in accessing a wider range of financing and other benefits. In addition, Regional Energy Agencies as market facilitators with mandates from public authorities are trusted advisors, enabling their uptake of innovative energy services and financing schemes to scale up projects and embed renovation strategies into public authorities' broader policy agenda.

Question 31. As part of their Long-Term Renovation Strategies (LTRS), Member States must outline relevant national measures to reduce energy poverty. The Renovation Wave Communication indicates a number of measures to tackle energy poverty and renovate worst-performing buildings, including social housing. It also states that vulnerable households must be shielded from rent increases that may follow renovations. What do you think are the most important policy areas addressing energy poverty to be further reinforced?

at most 3 choice(s)

- Targeted financial support for lower and middle income households
- Minimum energy performance standards coupled with financing that limits the monthly net expenditure of the inhabitants
- Other additional legislative measures (please specify in the comment box)
- The Affordable Housing Initiative
- The Energy Poverty Observatory
-

Other measures (please specify in the comment box)

I don't know / No opinion

Other legislative measures? Please specify:

500 character(s) maximum

Specific legislative measures are needed to earmark revenues from carbon pricing policies to help in particular lower income as well as disadvantaged rural households with the climate transition and to address possible negative distributional impacts. Moreover, as trusted and accessible partners, support should be given to renewable energy communities to engage with vulnerable households on energy efficiency and home renovation.

Further comments

Question 32. Do you have any further comments on policy aspects relevant for the decarbonisation of building which are not covered above?

1000 character(s) maximum

An ambitious and comprehensive revision of the EPBD is crucial to achieve higher energy efficiency and climate targets for 2030, reach climate neutrality and alleviate energy poverty. In that regard, the upcoming revisions of the EPBD and the EED should be well coordinated as to enhance their synergies - e.g. the EE1 principle should be referenced in the EPBD as well. The decarbonisation of the heating and cooling sector, for which an acceleration in the replacement of old and inefficient appliances is key, should also be considered as a priority by the EPBD, given that space and water heating account alone for roughly 80% of the final energy consumed by residential buildings. Finally, the EPBD scope is currently limited to improving the energy performance of buildings. However, it will be important to consider whether and how the EPBD should be extended to cover whole life-carbon performance in coherence with 2030 and 2050 climate targets.

Contact

ENER-BUILDINGS@ec.europa.eu

