

Response

to the European Commission's Consultation on the

Energy Performance of Buildings Directive

26 October 2015

A. Overall Assessment

1. How successful has the EPBD been in achieving on its goals?

The Energy Performance of Buildings Directive (EPBD) has successfully initiated a change-process in the construction sector to encourage planners and investors to better consider energy efficiency, and construction companies to improve insulation performance and installation quality. However, due to delayed or incomplete implementation, a slowly adapting construction industry and the low building stock replacement rate, the goals have not been fully achieved yet.

The EPBD has significantly improved the energy performance of new buildings in the EU, but the improvement of the overall building stock in the EU is limited because existing buildings have not been sufficiently addressed and because the rate of replacement (renovation or demolition / new construction) is too limited.

Some weaknesses are:

- The general population has difficulty to translate the calculated energy performance standard into the real energy cost savings for a building.
- The quality of energy performance certificates is too low. The relationship between the certificate and the energy cost is not clear enough. The certificate is perceived as an obligation and not as a driver for improvement.
- The exemplary role of public buildings should be better used.

2. Has it helped improve energy efficiency in buildings?

In general the EPBD, combined with other factors like the energy cost and the rising awareness about climate change, has helped to improve energy efficiency in buildings, mainly because the whole value chain has been better educated. Despite the improvement tendency, the untapped potential remains huge and there is a risk of lock-in effect (minor improvements

that prevent future deeper renovation). A long term vision for the whole building stock in line with EU energy and climate targets is needed to prevent this.

3. Has it helped to increase renovation (more than 25% of the surface of the building envelope) rates?

There is a lack of data about renovation as many renovations works are taking place out of the scope of any regulation (without building permit). It seems however that the renovation rate has not improved significantly.

The EPBD is not effectively encouraging the renovation with an energy efficiency goal, and is even not ensuring that energy efficiency is well considered in any renovation work. The main challenge in the future is to ensure that each renovation opportunity is well used to bring existing buildings towards NZEB or any performance level that is compatible with a long term vision of the EU building stock.

4. In your view, has the EPBD sufficiently contributed to accelerating investment in improving the energy performance of the EU's building stock? Why/Why not?

The EPBD has required Members States to set up financing schemes and therefore increased the public investment in the energy performance of the building stock. These financing schemes have also encouraged the private investment. The most successful financing schemes are the one that are supporting a clear long term goal and that remains stable during several years. In several Members States, financing schemes are changing every year which creates uncertainty and is not compatible with the time of an investment process.

5. Overall, do you think that the EPBD is contributing to cost-effective improvements of energy performance? Why/Why not?

Yes, the additional cost for new NZEB buildings have come down faster in Member States with a clear and ambitious political framework. But there is still an important cost-effective potential that remains untapped in renovation. Building renovation is a cost-efficient and indispensable way to achieve the EUs 2030 and long term energy and climate targets.

6. Do you think that the aim of ensuring the same level of ambition across the EU in setting minimum energy performance requirements within the EPBD has been met? Why/Why not?

No, the level of ambition is not the same in each Member States. The EPBD left an important freedom to Member States which is important to take into account specific local conditions.

The level of ambition is difficult to compare because of the disparity in the indicator used. The revised EPBD should ensure a better comparability between Members States and strive to similar ambition between member States with similar climatic conditions.

7. Has the EPBD effectively addressed the challenges of existing buildings' energy performance?

No.

8. Has the EPBD set effective energy performance standards for new buildings?

Yes, in most of the Member States.

9. Will the 'nearly zero energy buildings' targets be met? Why/Why not?

This target is not clear enough, which is resulting in very different understanding and implementation of the target at Member States level. Several member States haven't defined their "nearly zero" yet and are not well prepared enough.

10. How successful has the inclusion of Energy Performance Certificates in the EPBD been? Have the certificates contributed to improvements in energy performance of buildings?

The overall quality of the EPC is too low, especially for existing buildings. In several Member States they are only seen as an administrative obligation but are not influencing the secondary market and the rental market.

11. What has worked well in the EPBD? What needs to be improved?

The EPBD has worked well to reduce the energy consumption for heating in new buildings thanks to the introduction of calculation methods and requirements.

The EPBD is not working well enough for the existing building stock. In order to improve that, a long term target for the building sector is needed, supported by renovation strategies and adequate financing schemes.

12. Is the EPBD helping to contribute to the goals of EU climate and energy policy (Reduce greenhouse gas emissions by at least 40%; increasing the share of renewable energy to at least 27%; increasing energy efficiency by at least 27%; reform of the EU emission trading system)?

As buildings are responsible for 40% of energy consumption and 36% of CO₂ emissions in the EU, the EPBD is contributing to the goals of the EU climate and energy policy, but not significantly enough. Because of the importance of the building sector and the long life time of buildings, a specific target for the building sector is needed. The most effective way to achieve the long term target has to be found and financial incentives are needed to incentivize. Lock-in effects need to be avoided.

A clear target for the building sector would better protect other sectors (industry) from additional short-term measures in case the overarching energy and climate targets are missed.

13. Is it in line with subsidiarity? What should continue to be tackled at EU level and what could be achieved better at national level?

Yes, it is in line with subsidiarity. The detailed elaboration and adaption to specific requirements of a country can be done at national level. Because of the different local circumstance (climate, building typology, availability of district heating, building ownership...), each Member State or region should have enough freedom in the way to achieve the long target, but should be obliged to define a strategy to achieve it.

14. Are the objectives of the EPBD delivered efficiently?

The EPBD allows to deliver the objectives efficiently. It depends however strongly on the way it is implemented at national level. The lack of a buildings specific target might be seen as a reason for this.

15. Has the EPBD created any unnecessary administrative burdens? If so, please provide examples

The administrative burden is reasonable for the objective.

16. Has the EPBD created any unnecessary regulatory burdens? If so, please provide examples

The regulatory burden is generally reasonable for the objective.

B. Facilitating enforcement and compliance

17. Is compliance with the provisions of the EPBD adequate?

In several cases the implementation into national law was not completely done in time and is still not fully compliant.

18. Is the definition of NZEBs in the EPBD sufficiently clear?

No. The definition is using terms that are vague: “nearly”, “very high”, “very low”, “to a very significant extent”, “nearby”.

It should precise which kind of indicator should be used.

19. Is the NZEB target in the EPBD sufficiently clear to be met?

No, the definition is unclear.

20. If not, what, in your view, are the missing factors that would ensure compliance with:**a. Minimum energy performance requirements in new buildings?**

The definition should precise which kind of indicator should be part of the definition.

b. Minimum energy performance in major renovations of existing buildings?

As renovations are not happening often in the long lifetime of a building, each renovation should be seen as an important opportunity to improve the energy efficiency level towards a level that would be compatible with the long term energy and climate targets for the European building stock. For this it would be required to express long term and intermediate targets for the EU building stock, in line with the overall Energy and Climate targets.

c. Minimum energy performance for the replacing/retrofitting parts of the building envelope (roof, wall, window, etc.) and replacing/upgrading/installing technical building systems (heating, hot water, cooling, etc.)?

The single energy performance requirements for single parts of the building envelope or systems are not sufficient as they do not help to ensure a holistic view. A requirement to include this work in a long term strategy for renovation and energy supply (optionally including heat from industry) would be needed.

d. Minimum renewable energy requirements to meet the NZEB target by 2020?

It should not be required to reach a minimum share of renewable energy on site, but to study the different options. The first target should be to reduce the energy need. Then all options need to be evaluated, including optionally district heating from industry where available.

e. Certification of the energy performance of buildings, including tailor-made recommendations for the improvement of the energy performance of buildings?

For appropriate recommendations, a clear targets for the building stock is needed to avoid lock-in effects.

f. Regular inspections of heating and air-conditioning systems?

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21. Do you think the cost-optimum methodology gives sufficient evidence regard-

ing the actual cost of renovating buildings on top of the additional cost for Near Zero-Energy Buildings?

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22. Are there any cost-effective measures for ensuring compliance at local and regional level that could be replicated and used to improve compliance on a larger scale?

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23. What do you think of the various ways of calculating building energy performance at national/regional level? Please include examples.

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24. What measures are missing that could simplify the implementation of building regulations to make sure that buildings meet the required high energy performance levels?

The definition of long term objectives for the building stock are needed in order to define the required future energy performance level for buildings. Financial incentives are needed to support the needed investment to follow this renovation strategy. It is important to ensure that each renovation is following this long term strategy.

C. Energy Performance Certificates (EPCs) and stimulating energy efficient renovation of the building stock.

25. Are the available data on the national/regional building stock sufficient to give a clear picture of the energy performance of the EU's building stock, as well as the market uptake of energy efficiency technologies and the improvement of the energy performance of buildings in the EU?

No. There is in general a lack of data about renovation activities, uptake of energy efficiency technologies and thus energy need of the building stock.

26. Are the long-term national renovation strategies adopted sufficient to stimulate the renovation of national building stock? What examples of best practice could be promoted across the EU and how?

No, there is a lack of long term vision leading to a lack of financial incentives.

27. Have EPCs played a role in increasing the rate of renovation, the extent of renova-

tion, or both? For instance, are EPC recommendations being defined as the most effective packages of measures to move the performance of buildings and/or their envelopes to higher energy classes?

Not enough. EPC recommendations are not oriented towards a long term target.

28. Is setting a minimum renovation target for Member States to undertake (e.g. each year; percentage of building stock) important and requires further attention in the context of meeting the goals of the EPBD?

Yes. Actually the target should not consist only on a renovation target but be rather derived from targets on total greenhouse gas emissions and energy use of the building stock. A target on renovation rate only, would create a risk of minor renovations with lock-in effect.

29. Are obligations or binding targets for renovation or any other mandatory measure (e.g. mandatory minimum thermal efficiency standards for rental properties) missing from the EPBD to ensure that the directive meets its goals? If, yes, what kind of obligations and targets?

The first step is to set an overall EU target for the building sector, expressed in GHG emissions and energy efficiency and in line with the EU's energy and climate targets and derive targets for Member State or region. Member State have to define the best strategy to achieve the targets, considering the local conditions. Priority should be to reach the targets in a market-driven way by information and incentives.

30. Are EPCs designed in a way that makes it easy to compare and harmonize them across EU Member States?

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31. Do you think that the 'staged deep renovation' concept is clear enough in the EPBD?

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32. Have EPCs raised awareness among building owners and tenants of cost-efficient ways of improving the energy performance of the buildings and, as a consequence, help to increase renovation rates across the EU?

Not enough.

33. Should EPCs have been made mandatory for all buildings (a roofed construction having walls, for which energy is used to condition the indoor climate), independent of whether they are rented out or sold or not?

A better quality is needed for the EPC first, so that they can be transformed into an individual renovation strategy.

D. Smart Finance for Smart Buildings: Financing energy efficiency and renewable energy in buildings and creation of markets

34. What are the main reasons for the insufficient take-up of the financing available for energy efficiency in buildings?

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35. What non-financing barriers are there that hinder investments, and how can they be overcome?

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36. What are the best financing tools the EU could offer to help citizens and Member States facilitate deep renovations?

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37. What role do current national subsidies for fossil fuels have in supporting energy efficient buildings?

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38. Have energy efficiency and renewable energy projects been combined to maximise their financing? How can the EU help?

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39. How is investment in high-performing buildings stimulated and what is being undertaken to gradually phase out the worst performing buildings? Is it sufficient?

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40. What is being undertaken to solve the problem of 'split incentives' (between the owner and the tenant) that hampers deep renovations? Is it sufficient?

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41. Was

a) the scaling-up of existing funds sufficient to meet the goals of the EPBD?

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b) the creation of aggregated facilities (through standardisation of Energy Performance Contracts and clarification of regulatory, fiscal and accounting issues) sufficient to meet the goals of the EPBD?

Accounting rules for public authorities are not in favor of energy efficiency investments, as these investments can't be amortized on a long period and do contribute directly to the public debt.

E. Energy poverty and affordability of housing

42. What measures have been taken in the housing sector to address energy poverty?

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43. Should have further measures tackling energy poverty been included in the EPBD?

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44. Has tackling energy poverty been a requirements when constructing new buildings and renovating existing buildings in Member States?

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45. Are energy costs for heating and air conditioning being made available to interested buyers/tenants?

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F. Ensuring new highly efficient buildings using a higher share of renewable energy

46. What are the best policies at district and city level to increase energy efficiency in buildings? Have specific targets on renewable energies in buildings been included?

Regarding space heating and cooling, specific target on renewable energy should not be included. A holistic view needs to be taken, starting with a reduction of the energy need of the building and including other options like district heating. Renewable energies are incen-

tivized via separate schemes and should be developed further in a market-driven way and not by new obligations.

47. On the basis of existing experience, are provisions on targets or specific requirements for new buildings, beyond the current NZEB targets, missing in the EPBD which could help achieve the energy efficiency 2030 target? If so, in what types of targets or requirements?

New targets and requirements should focus on existing buildings.

48. Which building sectors have been addressed as a priority (public/private, residential/non-residential, industry, heating & cooling)?

The exemplary role of public buildings should be reinforced.

49. Has having no EU set targets (indicative or binding) for the sustainable public procurement of NZEB buildings by public authorities affected the development of NZEBs?

The exemplary role of public buildings should be reinforced by any possible option.

50. Has the EPBD framework improved the self-consumption of electricity in buildings?

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51. Does the EPBD address the issue of embedded energy? If so, in what way?

No and it's not necessary. The EPBD should remain focus on energy efficiency in use phase.

52. Is demand response being stimulated at the individual building level and if so, how?

No.

53. What obligations are missing at EU level and national level, and at regional and local level to meet the goals of the EPBD?

A binding long term target for GHG emissions of the building stock is missing.

G. Links between the EPBD and district and city levels, smart cities, and heating and cooling networks

54. What are the best policies at district and city level for increasing energy efficiency and use of renewable energy in buildings?

The building level is the first level to act on energy efficiency of buildings.

Energy supply, including all options like centralized renewable energy or district heating should however be addressed both at buildings and at district and city level. The district level might be interesting to group renovation works or new buildings.

55. Are there any separate (new) obligations set at city and district level missing from the EPBD which would help increase energy efficiency and use of renewable energy in buildings?

Renewable energy should be better integrated into the market do grow in a market-driven manor rather than by additional obligations. For energy supply, alternatives to renewable energy, like using waste heat from industrial installations and power plants should also be considered where available.

56. How has the information exchange on smart technologies which contribute to compliance of the EPBD, been promoted in cities?

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57. Are smart meters and their functionalities contributing to meeting energy efficiency targets and the proper implementation of the EPBD? Are other targeted meters for heat, gas and water have specific provisions such as those for electric meters needed?

Smart meters and information about heat use may improve energy management and occupant awareness.

58. Has the promotion of smart cities, smart buildings, sustainable transport solutions, smart mobility, and similar initiatives been linked with the EPBD and its aims? If so, how?

Buildings form an integral part of the energy system and will have a key role to play in the generation, consumption and storage of energy as well as in demand response. In order to optimize these functions, buildings must primarily be designed in a way that minimizes their own energy consumption. Secondly, interfaces need to be created to enable their full integration in smart environments, including possibly the use of heat from industrial installations.

59. Have obligations been set at a national/regional level in relation to buildings and district heating and cooling, or in relation to buildings and storage? Why/Why not?

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60. What incentives are missing, that would help promote efficient district heating and cooling or meeting the goals of the EPBD?

When planning efficient district heating networks, the long-term implications of reducing the heating / cooling demand of buildings through renovation needs to be taken into account. Otherwise, over-dimensioned generation capacities and networks might be put in place and become a stumbling block to ambitious renovation projects.

Requirements regarding the energy efficiency of the district heating and especially the insulation level of the heat distribution pipes are also needed to ensure good efficiency of the heat distribution network.

61. Have cost-optimal policies been devised that improve the performance of buildings so that they use less heating and cooling, while ensuring a decarbonised energy supply?

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62. Does the EPBD and its definition of NZEB reflect the requirements that could derive from the energy systems of nearly zero-emissions districts and cities?

Yes. Minimizing a building's energy demand in priority and covering the remaining demand by renewable energy sources (nearby) and waste heat to the largest possible extent clearly contributes to the creation of zero-emissions districts and cities.

H. Awareness, information and building data

63. What do you think of the quantity and quality of information on the importance of energy efficiency provided to consumers by:

1. the European Commission?

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2. national authorities?

National and regional authorities have an important role to play to explain the societal importance of energy efficiency in buildings, to provide good neutral technical information about solutions and to avoid any misleading information from other parties.

3. regional authorities?

National and regional authorities have an important role to play to explain the societal importance of energy efficiency in buildings, to provide good neutral technical information about solutions and to avoid any misleading information from other parties.

4. local authorities?

Local authorities have an important role to play to support citizens with specific information related to their situation and project.

5. local companies?

Local companies have an important role to play to support citizens with specific information related to their situation and project. However this requires them to have appropriate knowledge on technologies and to understand their role as ambassadors for the EUs energy and climate targets.

64. Has the directive promoted information on opportunities for consumer-friendly smart meters and interoperable energy efficient appliances?

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65. What relevant building data has been collected at EU and Member State level, and city and district level? Who has access to this data?

There is a lack of harmonized and centralized data.

66. How can data on the energy performance of a building and its related renovation work, across its life cycle, best be managed and made available?

The core data (energy rating, improvement works already undertaken) should be made available in a public database.

67. Has building data harmonisation been achieved?

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68. Is there a need for a central EU database of EPCs and qualified experts?

More harmonization of EPCs is first needed.

I. Sustainability, competitiveness and skills in the construction sector

69. How does the construction sector cost-effectively demonstrate and check compliance with the EPBD while also upgrading the skill and knowledge of tradespeople and professionals?

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70. Would it have been useful to extend Eurocodes to include energy performance in buildings and other relevant aspects? If so, why?

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71. Are energy, materials, waste and water use addressed in the EPBD?

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J. Buildings systems requirements

72. Based on existing experience, do you think the setting of minimum requirements in the EPBD for technical building systems is missing? Would have technical building systems minimum requirements contributed to the improvement of buildings' energy performances?

The EPBD shall set an overall target (NZEB), but leaves Member States / designers the choice of measures to achieve that goal (building envelope, technical building systems, renewable energy generation etc.). This approach should not be changed.

73. Based on existing experience, do you think in the EPBD minimum requirements for technical buildings systems focussing on other factors than heating, air condition, large ventilation systems and domestic hot water e.g. certain building categories, building size, etc., is missing?

No

74. Based on existing experience, do you think in the EPBD requirements is missing for regular inspections of the technical building systems to ensure:

a. that systems' performance is maintained during their lifetime?

This should be part of normal system warrantee and maintenance program.

b. that owners/occupiers are properly informed about the potential improvements to

the efficiency of their systems?

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c. that replacement/upgrading of the technical building systems is triggered?

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75. Have inspections required by the EPBD, been incorporated into or more tightly linked to other inspection/certification/energy auditing activities and schemes under other EU or national directives?

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76. Are the requirements for building elements set by Member States optimised to avoid market barriers limiting the installation of building products complying with EU requirements/standards e.g., under eco-design requirements?

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K. Operational management and maintenance

After the completion of development and/or renovation works, buildings still use energy in a way that impacts building occupants and operators (e.g. via energy costs). Ongoing operation is a key part of a building's life cycle and is related to the goal of building NZEBs by 2020.

77. Based on existing experience, does the EPBD promote the key ways to ensure that buildings meet stringent efficiency targets in their operation?

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78. Based on existing experience, does the EPBD promote the best way to close the gap between designed and actual energy performance of buildings?

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79. Based on existing experience, are the provisions provided by the EPBD to stimulate a proactive, innovative maintenance market effective?

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L. Further comments

80. Please include any further comments that have not been covered in the consultation (5000 characters maximum)

The Energy Efficiency Directive (EED) that was published later than the EPBD is also addressing buildings, and especially the existing building stock, which was already a good step forward to fill this gap in the EPBD. In case of recast, we recommend to have one unique directive for buildings that address all issues, which means that the requirements of the EED related to buildings should be reviewed together with the EPBD and integrated.

Opportunities for use of heat from industrial installations should be created in a market-driven way, avoiding additional obligations for industry.