

EuroACE Position Paper on the EPBD Public Consultation

30th October 2015

Final

This paper contains the additional comments of EuroACE to the public consultation on the EPBD and it was submitted to the Commission on the 30th October 2015.

Summary

EuroACE, representing a broad range of leading companies that provide the products, equipment and services that together ensure our buildings are highly energy efficient, believes that:

1. The energy performance of buildings in the EU must remain a sector that is regulated by EU policy and legislation
2. The existing regulatory framework for the energy performance and efficiency of buildings must be fully implemented and enforced and any future development of the regulatory framework must be conceived with a clear, ambitious objective: to ensure that the building stock as a whole reaches an nZEB performance level by 2050
3. The focus of the regulatory framework must be urgently increased towards existing buildings as they have the highest energy savings potential. It must ensure that each Member State captures the full savings potential tied up in its building stock, whilst also delivering the multiple benefits that flow from ambitious energy renovation programmes
4. A building stock at nZEB level by 2050, with clear milestones at 2030 and 2040, is the best starting point for a cost-effective energy transition towards a smart energy system for the EU. Therefore, each Member State should be required to develop and implement national energy renovation strategies that will lead, with certainty, to the achievement of an nZEB building stock by 2050
5. To facilitate the achievement of this vision for 2050, the nZEB definition should be clarified and more detailed guidance on the concept should be developed by the European Commission for use by the Member States, especially in how it can be extended to existing buildings
6. The regulatory framework for the energy performance of buildings, whether applied to new or existing buildings, should reward integrated approaches that ensure optimisation of all factors that contribute to a high energy performance, including decisions on the building envelope, technical building systems, maintenance regimes and controls
7. Significant and continuous efforts to raise and maintain awareness of the huge contribution that energy renovation of our existing buildings can bring for the benefit of all must be maintained at all levels throughout the EU. At the same time, tools to engage and motivate consumers should be developed, such as, for example, individual tailored building renovation roadmaps
8. Measures to improve the quality and coordination of energy efficiency works and services must be put in place including, inter alia, training and up-skilling of the workforce (all professions and trades), more regular inspections of works and more enforcement of good practices, monitoring of results and feedback to ensure constant improvements are achieved
9. Access to financial resources, based on a stable, predictable and long-term regulatory framework, must be possible at key moments in the life of a building so that cost-effective measures can be put in place in a timely, well-planned manner
10. Regular reviews of the regulatory framework must be undertaken to ensure that it remains relevant, up to date and adequately ambitious to ensure achievement of a resilient and high quality nZEB building stock by 2050

The following pages elaborate on the ten key points noted above and further elaboration and detail on the views of EuroACE are contained in the full response to the Public Consultation Questionnaire submitted by EuroACE.

The importance of the energy performance of buildings must be fully recognised by EU legislation

The EU has set itself the significant and ambitious goal of moving to a low-carbon, competitive and sustainable economy by 2050. Achieving this goal will require particular and coordinated effort in many sectors and first among the sectors to be addressed is the building sector. This is because buildings represent the highest proportion of fixed capital assets in the EU, they consume about 40% of all primary energy, a great share of this being imported energy, and they are responsible for about 36% of energy related CO₂ emissions. For all of these reasons, the energy performance of buildings must remain an important dimension of EU policy and legislation.

EuroACE welcomed the Energy Union Communication of the European Commission, issued in February 2015, as the building sector was identified as one of the **priority sectors** and the Commission stated that it “*will pay special attention to those sectors with a huge energy efficiency potential, in particular the [...] buildings sector.*”¹ With the Review of the EPBD, it is time to turn the talk into action, it is the moment to put the political pledge of **Energy Efficiency First** into practice, and to revise existing pieces of legislation (EPBD and EED) in a way that enables the EU and its Member States to better address the challenges of the building stock in the EU.

The greatest challenge will be dealing with our existing building stock as the vast majority of our buildings were built before the introduction of energy performance requirements. This means that most of our buildings are wasting energy leading to high energy bills, poor indoor comfort and climate, reduced competitiveness and low productivity. It is therefore necessary to ensure that the focus of future changes in the policy and legislative framework is on our existing building stock.

The EuroACE vision – a building stock at nZEB level by 2050

A building stock at nZEB level by 2050, with clear milestones at 2030 and 2040, is the best starting point for a cost-effective energy transition towards a smart decarbonised energy system for the EU.

Therefore it is necessary to develop and implement a long-term vision for our building stock that can be co-delivered by all levels of governance from the EU, national, regional and local levels. The goal of the long-term vision, in the interests of stability, prosperity and quality of life should be that **by 2050, the building stock in the EU should be at nZEB level**. This vision should apply to new buildings being constructed and to existing buildings undergoing renovation, and should translate into a five-fold reduction of the regulated energy demand² of the building stock in the EU by 2050, compared to 2005 levels. This goal is in line with the requirements that the EU has set itself in the **Low Carbon Economy Roadmap 2050**³, i.e. reducing greenhouse gas emissions by over 80% by 2050,⁴ which means an 88 to 91% GHG reduction for the building sector.

In this respect, the nZEB definition should be clarified, ensuring that the Energy Efficiency First Principle is put into practice leading to an optimised energy performance of each individual building. The definition could be inspired by the concept of a *Smart Building*⁵, being first and foremost an energy efficient building.

¹ European Commission, Communication “A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy”, COM(2015)80, 25 February 2015, page 12.

² As in EPBD Article 2(4), this covers heating, cooling, ventilation, hot water, and lighting.

³ “A Roadmap for moving to a competitive low carbon economy in 2050”

http://eur-lex.europa.eu/resource.html?uri=cellar:5db26ecc-ba4e-4de2-ae08-dba649109d18.0002.03/DOC_1&format=PDF

⁴ European Commission, Communication “Energy Roadmap 2050”, COM(2011)885, 15 December 2011, page 3.

⁵ EuroACE Position Paper available at <http://www.euroace.org/LinkClick.aspx?fileticket=ULREOmME8b8%3d&tabid=192>

Given that there is **no technological gap** - all technologies to achieve an nZEB-level building stock are available today - the energy efficiency potential in buildings could already be tapped through a sustained and coordinated collaboration between government, industry and actors from the full building value chain. This would quickly upscale existing know-how, processes and practices, thus releasing multiple benefits for the economy, for our society and for the environment. This opportunity should not be missed!

The multiple benefits of building renovation up to nZEB level must be fully recognised

Pursuing ambitious building renovation programmes that lead to high levels of energy efficiency in buildings have been shown time and again to unleash multiple benefits that go beyond energy savings and reductions in CO₂ emissions. In other words, building renovation should be recognised for what it is: an **investment delivering multiple benefits**. According to a report by *Copenhagen Economics* which monetised these benefits, ambitious building renovation programmes could bring up to €175 billion of societal benefits by 2020 and up to €350 billion by 2030.⁶ These findings were reinforced by the more comprehensive work on multiple benefits of energy efficiency undertaken by the International Energy Agency⁷ in 2014.

These wider societal benefits include, *inter alia*

- An increased **energy security** (avoiding to spend billions of euro importing energy from outside the EU);
- An increased **competitiveness**, more growth and jobs (with 2 million local jobs created in 2020);
- An improved indoor air quality, better **comfort and health** (90% of our time is spent in buildings and 80 million Europeans live in damp and leaky buildings today⁸);
- A sustainable solution to **energy poverty**;
- Improved **public and private finances**.

Nonetheless, between 70% and 90% of our existing buildings are still inefficient, because they were built prior to energy performance requirements and have not yet been renovated. Today, energy renovation rates are too low and the depth of energy renovation works is too shallow. Consequently, **the potential of energy efficient buildings and their recognised multiple benefits is still not fully tapped**. Adequate action needs to be undertaken, so that firstly, awareness is raised about all the above-mentioned benefits, that secondly their importance is fully recognised and understood and thirdly, that they are delivered to European consumers and companies.

Finally, in assessing value for money and returns on investment in energy efficiency measures, the full value of the multiple benefits must be accounted for; we must leave behind the period where only the straight payback period was taken into account in assessing investment opportunities.

In short, a *Smart Building* could be described as a well-designed and orientated building where energy efficiency comes first, where the appropriate materials and equipment have been specified, sized and installed and whose functioning is fully monitored, controlled and optimised through a building management system. It is a building that is connected through the smart grid to its neighbourhood. It has a functional, comfortable and healthy indoor environment and its intrinsic low energy demand enables the cost-effective use of renewable energy sources. Being fully integrated into the wider energy system it can, through demand-response and energy storage, ensure increased flexibility and deliver better value to owners and occupants. A Smart Building empowers its owner or occupant to take informed decisions about energy use throughout the lifetime of the building through the provision of reliable, protected, real-time data on the building energy production and consumption.

⁶ Copenhagen Economics, *Multiple benefits of investing in energy efficient renovation of buildings*, October 2012.

⁷ International Energy Agency, *Capturing the multiple benefits of energy efficiency*, 2014.

⁸ Fraunhofer-Institut für Bauphysik IBP, *Towards an identification of European indoor environment's impact on health and performance*, 2014
http://www.ibp.fraunhofer.de/content/dam/ibp/en/documents/Press-releases/Velux-prestudy_WhitePaper_141205_amended.pdf

The EPBD is a good tool, but needs thorough implementation, and effective consolidation

The current EPBD is a good tool for improving energy performance of buildings. It has stimulated the Member States to consider their energy efficiency buildings policies and regulations and has led to a tightening of requirements across the EU as a whole. Consequently, the market for energy efficiency has, despite difficult economic times, continued to grow⁹. Not least, markets demonstrating higher renovation activity, driven by a more ambitious policy and financing framework, have shown better resilience during the economic crisis.¹⁰ Despite these clear signs, further **thorough implementation and effective consolidation** of the provisions of the EPBD are needed.

Firstly, efforts to improve the energy performance of buildings must be led by the EU, which must set out the challenges and opportunities that are to be faced in the achievement of our common long term goals. The strategies and measures to be adopted must then take account of the fact that change in construction regulations and practices takes time and that the poor economic climate was not conducive to a rapid take up of new and better regulations. **Efforts to ensure full implementation and enforcement must be tenaciously pursued.** Secondly, in order to secure minimum performance thresholds, EuroACE calls on the European Commission to strengthen compliance with existing cost-optimal requirements, knowing that moving towards 2050 objectives will require higher levels of ambition. Thirdly, in order to ensure that nZEB requirements lead to properly designed, low energy buildings and in order to drive the market further, clarification of the nZEB definition that reduces the wide divergence in current definitions, and in particular that secures low heating and cooling demand across the EU, is needed.

Another important evolution is to increase the **focus of the EPBD** on existing buildings and building renovation, whilst maintaining requirements for new buildings. This is because a vast majority of the buildings existing today will still be standing and in use in 2050. In the absence of new policies, four fifths of the cost-effective potential in buildings might be lost by 2035.¹¹

In order to tap the cost-effective potential in existing buildings, Member States should develop national **targets for the energy performance of buildings**, ensuring that the sector is adequately prioritised. Visibility needs to be given to all actors; this requires clear motivating objectives and milestones, e.g. dividing the energy demand in buildings by a factor of five by 2050. It also implies setting energy renovation rates and depths in accordance with an agreed end goal. In this way, specific national characteristics are respected, while ensuring convergence at the same time.

It is through a managed interaction between an energy efficient building envelope and the installed equipment and controls that the best energy performance results are achieved. A correct building design, choice and installation of envelope related solutions (insulation, windows and glazed areas, ventilation) are key to ensuring an overall low energy demand. Regarding **technical building systems**, minimum energy performance requirements should be set at a system level for heating, cooling and ventilation equipment, hot water and lighting services, lifts and elevators, controls and building management systems as the greatest impact on achieving optimum levels of energy efficiency comes through the proper sizing, design and installation of such systems. This is particularly important for heating, cooling and ventilation systems, as they must be sized to match the overall energy demand of the building. After proper installation and commissioning, all technical building systems must be regularly monitored, optimised and maintained during useful lifecycle.

⁹ International Energy Agency, *Energy Efficiency Market Report*, October 2015 (<http://www.iea.org/topics/energyefficiency/>)

¹⁰ Joint Research Centre, *Energy renovation : the Trump card for the New Start for Europe*, 2015

¹¹ World Energy Outlook, 2012.

Measures to boost energy efficient renovation of buildings

EuroACE believes that the adoption and implementation of the energy renovation measures described below will enable the EU to deliver its Energy Union promises, i.e. giving EU consumers (households and businesses) a secure, sustainable, competitive, and affordable energy. Existing measures to boost energy efficient renovation of buildings are **technically feasible and economically affordable**. They should be encouraged and implemented in a holistic cost-effective manner at building level, at the best moment in the lifecycle of the building. .

These measures should address both the quantitative aspect (rate) and qualitative aspect (depth) of renovation. In parallel to the need to increase energy renovation activity (rate), i.e. energy efficiency requirements shall apply to a larger part of the building stock in a more systemic manner, the ambition for energy savings (depth) of a renovation needs to be improved, i.e. requirements shall be compatible with achieving an nZEB-level building stock by 2050.

On the renovation rate, an important step would be to adopt a more forward-looking perspective, with the improvement of the **long-term building renovation strategies** contained in EED Article 4. These should be equipped with a proper time-horizon, a national objective for the building stock, milestones to focus efforts, and an implementation plan. They should also be more coherent with EED Article 5 (“*exemplary role of public bodies’ buildings*”) and EPBD Article 9(1), i.e. the national plans for increasing the number of nZEBs. Moreover, these strategies need to be properly resourced and accompanied by robust monitoring and enforcement.

One useful option would be to ensure that **all buildings get an Energy Performance Certificate (EPC)** containing accurate information on the performance of the building and on its potential for improvement. This would drive demand for energy efficient renovation of buildings as owners and occupiers would be more informed of the potential tied up in their property.

Further measures could include requirements for “**consequential renovation**” at key moments in a buildings life, linked to well-designed and stable financing schemes. This means that each time there is a change of ownership or a certain type of work being implemented on the building (e.g. aesthetic changes, equipment changes, accessibility improvements), there would be a requirement that energy efficiency improvements would take place as well. Some governments are also working towards the adoption of progressive regulatory signals that would require worst performing buildings to be renovated first or by a certain deadline¹². These are examples that could be used to inspire new measures across the EU.

Finally, in order to avoid lock-in effects, it shall be ensured that the target **renovation rate will lead to a deep renovation of the building stock**, tapping the full energy savings potential.

In order to increase the volume of energy savings realised through renovation (depth), policy should guide markets in order that all renovation works are planned to ensure the achievement of the overall objective of an nZEB level building stock by 2050. Concretely, this means that “staged deep renovations” should progressively become mainstream, i.e. a renovation that captures, either in one go or in a series of planned stages, the full cost-effective energy savings potential of the building, that avoids lock-in effects. We therefore consider it is important to look for consistency and alignment in EPBD definitions notably between the concepts of “major renovation”, “deep/staged deep renovation”, and “nZEB”, and to provide guidance on how to apply the nZEB concept to existing buildings.

¹² For example, the UK has announced that buildings with an EPC rating of F or worse cannot be rented after 2019 and France has proposed that all buildings with an energy consumption in excess of 300kWh per m² per year have to be renovated before 2025

A key driver to boost both the rate and depth of energy renovation works would be to enhance **the quality of EPCs**, notably by transforming them into a more dynamic tool. They could become individual renovation roadmaps or passports, which *inter alia* assess the actual energy performance over time, assess the quality of the indoor climate, record interventions made, trigger energy renovations at the opportune time in the life of the building, and accelerate decision-making based on accurate recommendations for cost-effective improvements.

If adopted, all these measures would lead to an increased depth and rate of building renovation, i.e. **better renovations delivering better buildings and better quality of life**.

Thorough implementation, compliance, training and well-designed financing for building renovations are key

Finally, EuroACE believes that a quality revision of the EPBD should include measures to ensure its **thorough implementation**. These measures could include the requirement for Member States to introduce (targeted) on-site inspections, validated through certification via increased market surveillance, and leading to improved quality of work and the creation of one-stop shops to facilitate access to advice and financing.

In addition, measures to improve the skills and competences of all actors in the value chain are crucial and are required at all levels of intervention. For example, there is a need to increase technical capacity in government departments and local government offices and there is a need to increase collaborative interaction between design professionals and contractors. In fact, the clearer and more specific the ambition of a renovation strategy, the more likely it is that the actors in the value chain will seek and accept training and up-skilling.

Regarding **access to financing**, there are several solutions to be explored in order to boost investment in energy efficient renovations, such as setting tax exemptions (e.g. VAT reduction for renovation works), linking property tax and/or stamp duty to the performance of the buildings, giving an off-balance sheet treatment to public subsidies for building renovations (especially at regional and local level), and facilitating project bundling¹³.

The recommendations included in the EEFIG Report¹⁴ should be implemented so as to boost investor and financier confidence in energy efficiency investments. **Overall, investors need a long-term and stable perspective that delivers policy predictability and avoids stop-and-go national incentives.**

END

¹³ Project-bundling is already appearing in several parts of the EU, notably in France, where the Energies Posit'IF model is a clear front-runner (<http://www.energiespositif.fr/>).

¹⁴ EEFIG, *Energy Efficiency – the first fuel for the EU economy: how to drive new finance for energy efficiency investments*, February 2015

EuroACE

THE EUROPEAN ALLIANCE OF COMPANIES
FOR ENERGY EFFICIENCY IN BUILDINGS

For further information

Adrian JOYCE
EuroACE Secretary General
+32 (0) 2 639 10 10
adrian.Joyce@euroace.org
www.euroace.org

About EuroACE

EuroACE represents Europe's leading companies involved with the manufacture, distribution and installation of energy saving goods and services for buildings. The EuroACE companies employ over 315 000 people and have over 880 production facilities and office locations in the EU. The mission of EuroACE is to work together with the EU institutions to help Europe move towards a more efficient use of energy in buildings, thereby contributing to Europe's commitments on climate change, energy security and economic growth.

EuroACE Members (October 2015)

