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2021 Revision of the Energy Performance of Buildings Directive: an opportunity not to be missed

# INTRODUCTION

Addressing the structural shortcomings of the building sector, given its substantial contribution to greenhouse gas emissions and energy consumption,<sup>1</sup> is a **stepping stone towards the achievement of the climate goals**, as also recognised by the startling Intergovernmental Panel on Climate Change's <u>latest report</u>. At the same time, in light of the essential role that buildings play in day-to-day lives, improving their conditions and making them future-proof allows to provide better and healthier living conditions for all, alleviating energy poverty and reducing inequalities.

A paradigmatic shift in the building sector is needed to improve its overall energy performance, move away from the use of all fossil fuels and develop sustainable and circular practices across the whole value chain, while contextually reaping all the **multiple environmental, social and economic benefits that are associated with a future-proof stock**.<sup>2</sup> However, the current EU policy framework has proven to be structurally inadequate to trigger the transformational change of European buildings at the pace needed to achieve their full decarbonisation in line with the science-based goal to limit temperature rise to 1.5°C.

This is particularly the case for the **Energy Performance of Buildings Directive (EPBD)**, the main legislative instrument regulating buildings across the EU, which aims at fostering energy efficiency and thereby facilitating the penetration and accelerating the deployment of renewable energy sources in the building sector. Indeed, even though almost all Member States implemented the Directive adequately throughout its subsequent revisions, still <u>more than 75%</u> of **existing buildings are highly energy inefficient** and it is estimated that <u>85-95% of them</u> <u>will be standing in 2050</u>. Light renovations, generating very low energy savings, are the ones

<sup>&</sup>lt;sup>1</sup> In the EU, buildings are the single largest energy consumer, accounting for around 40% of all the energy consumed. Three quarters of this energy come from the direct use of fossil fuels, causing 36% of the bloc's greenhouse gas emissions. Embodied emissions typically contribute 10-20% of the total EU buildings' carbon footprint.

<sup>&</sup>lt;sup>2</sup> The benefits of energy savings and renewable energy in buildings include, among others: reduced greenhouse gas emissions and air quality improvements, lower energy bills, job creation and increased innovation and competitiveness in the construction industry, as well as energy poverty alleviation and increased societal wellbeing thanks to healthier homes and offices.

being carried out <u>more commonly</u> across the EU and also where the <u>majority of investments</u> in the sector occur. The reason for such a systemic deficiency lies first and foremost in the lack of a stringent regulatory framework for deep renovations, as well as inadequate incentives and measures to overcome the persistent non-regulatory barriers. Furthermore, the EPBD provisions do not address the issue of embodied emissions and the overall sustainability of the built environment. Fostering the use of sustainable materials, resource efficiency and a more circular approach in the construction and building sectors are important aspects that the revision should address in order to achieve the full decarbonisation of the EU building stock across its whole life cycle.

As actions in the next ten years will be decisive in reaching the 1.5°C objective, it is now time to intensify the efforts and make sure that the revision of the EPBD enshrines a higher level of ambition in line with the Paris Agreement's goal, towards a highly energy efficient and renewable-based building sector. The European Commission, the European Parliament and the Council cannot miss the opportunity to ensure clean, sustainable and healthy buildings for all.



# **AIM OF THIS BRIEFING**

Strengthening the Energy Performance of Buildings Directive (EPBD) is pivotal to tap into the energy savings potential of the EU building stock and accelerating its decarbonisation. To this end, the shortcomings and limitations of the current framework must be addressed to translate the higher climate ambition into more stringent and effective measures to increase substantially the rate of deep renovations and move towards a building sector that is highly energy efficient, sustainable and renewable-based only.

This briefing provides a concise overview of this key piece of legislation and its recent developments. It also puts forward a set of recommendations on how the current policy framework should be strengthened. These include:

# A stronger policy framework

- Strengthening the Long-Term Renovation Strategies
- Improving the Energy Performance Certificates
- Future-proofing the Nearly-Zero Energy Building definition

### Towards an annual 3% deep renovation rate

- Introducing minimum energy performance standards
- Setting a deep renovation definition



# **STATE OF PLAY IN A NUTSHELL**

The EPBD is a centrepiece of the EU legislation and it aims at improving the energy performance of the EU building stock by fostering energy efficiency and thereby contributing to the reduction of greenhouse gas emissions and the incorporation of renewable energy sources in the sector. First introduced in 2002, the Directive was recast in 2010 with the intention to simplify the legal framework and facilitate implementation. Its scope has also been expanded with the addition of what are now some of its most distinctive provisions, notably the cost-optimal minimum requirements for major renovations and the Nearly-Zero Energy Building (NZEB) definition, which all new buildings need to meet as of 2021. The recast also strengthened existing measures on Energy Performance Certificates (EPCs) by making them mandatory whenever a building is sold or rented out.

In 2016, as part of the <u>"Clean Energy Package</u>", the European Commission proposed to review the EPBD and put forward a targeted revision focusing on a limited amount of provisions. Adopted in 2018, the revised EPBD incorporated the national long-term renovation strategies, which were previously under Article 4 EED, expanding their scope and increasing their requirements, while introducing measures to support the rollout of electric vehicle (EV) charging infrastructure in buildings' parking lots and an optional EU scheme to rate the smart readiness of buildings.

According to Article 19 EPBD, an ex-post evaluation of the Directive should have taken place by 2026 at the latest with a view to assess the progress made in its implementation. However, in light of the European Green Deal and the higher climate ambition, the Commission included the EPBD among the legislative revisions of the Fit for 55 package in 2021. According to the Renovation Wave's action plan, the EPBD revision will aim at doubling current renovation rates by 2030 and look at the introduction of mandatory minimum energy performance standards, strengthening the provisions on EPCs and considering the establishment of a deep renovation standard.



# EPBD REVISION 2021: BUILDINGS AT THE FOREFRONT OF THE ENERGY TRANSITION

The revision of the EPBD, substantiating the commitments of the Renovation Wave strategy, is an essential component of the European Commission's agenda that could have a profound impact on climate action, provided it is developed and implemented at the level of ambition and pace needed to be in line with the Paris Agreement's objective.

As action in the next ten years will be decisive to achieve such a goal, the EU needs to strive for at least 65% greenhouse gas emission reductions by 2030. This requires higher targets than those currently included in the EED and RED proposals, notably aiming at an EU 2030 energy efficiency target of at least 45% and an EU 2030 renewable energy target of at least 50%. Against these objectives, the Renovation Wave's goal of merely doubling current renovation rates, achieving a 60% reduction in greenhouse gas emissions and 14% reduction in final energy demand by 2030, is insufficient. In light of the Paris Agreement Compatible (PAC) Scenario, CAN Europe supports an increase in building renovation rates to at least 3% through the introduction of mandatory minimum energy performance standards and the reinforcement of existing measures, such as the national Long-Term Renovation Strategies and the Energy Performance Certificates among others, while ensuring a broadened policy approach towards the whole life cycle impact of buildings.

CAN Europe key priorities on the EPBD revision are presented below.

# A STRONGER POLICY FRAMEWORK

# **Strengthening the Long-Term Renovation Strategies**

Adequate and robust planning is essential to transform a sector which is highly heterogeneous and characterised by scattered ownership, high investment needs and long lead times. The Long-Term Renovation Strategies (LTRSs) have the potential to become the drivers of national policies and measures to decarbonise the existing building stock, but the provisions of Article 2a currently fail to provide the appropriate framework for such a development.

First of all, in terms of overall level of ambition, the LTRSs are still based on the long-term 2050 target of reducing greenhouse gas emissions in the Union by 80-95 %, thus contradicting the objectives of the European Green Deal and the <u>Climate Law</u>. Strengthened LTRSs should actually reflect the contribution of the building sector towards achieving climate neutrality in line with the Paris Agreement's goal. For this reason, **Article 2a must be revised and aligned with the higher ambition, supporting an increase in annual deep renovation rates to at least 3% well ahead of 2030**.

The recent experience with the Member States' strategies also exposed several weaknesses in terms of comparability and monitoring of compliance. Indeed, the LTRSs should have been submitted to the Commission by 10 March 2020 as an addendum to the National Energy and



Climate Plans (NECPs). However, by the end of the year, only fifteen LTRSs had been presented. According to the preliminary assessment, less than half of them included a clear roadmap towards a decarbonised building stock by 2050, while the majority missed to translate the ambition into an appropriate set of measures to underpin the 2030 and 2040 milestones. To overcome these shortcomings, comparability between LTRSs should be enhanced via a common template, and Member States should be required to develop binding pathways to reach a highly energy efficient and renewable-based building stock, linking each milestone in terms of energy demand reduction and greenhouse gas emissions reduction with the planned measures to be introduced, such as mandatory minimum energy performance standards (see below). The LTRSs should also detail the contributions from national actions by 2030 towards the achievement of an increased EU energy efficiency target. In this context, the 2030 EU energy efficiency target needs to be binding, as the recast proposal of the EED, which came out in mid-July, indicates. The inclusion of national binding targets in the revision of the EED would also ensure accountability at the national level, while providing legal clarity and supporting investments in energy efficiency, including in the public and private building sector.

Furthermore, a comprehensive and coherent approach is needed to decarbonise the building sector in a holistic way, notably coupling building renovation and energy efficiency improvements with the shift towards a fully renewable-based energy system and the measures aimed at accelerating the penetration of renewable energy in buildings. With a view to speed up the transition towards a fully decarbonised stock, the LTRSs should integrate the national planning and measures on heating decarbonisation, notably by linking the strategies - and making them consistent - with the relevant provisions of the revised Energy Efficiency Directive (EED) and the Renewable Energy Directive (RED), in particular those relating to the planning and cooling (proposed Article 23 EED) as well as to those on mainstreaming renewable energy in buildings (proposed Article 23 RED). Building on these synergies, the strategies should clearly spell out a ban on the installation of fossil-fuel-based appliances in new buildings from 2025 at the latest, while including a progressive phase out from the existing stock, in order to ensure a cost-effective transformation and avoid the risk of lock-in effects and of investments in stranded assets.

Revised LTRSs should also address the buildings' whole life cycle impact, notably by setting progressively-tightened targets for the reduction of the embodied emissions. Member States should collect data and report on the whole life cycle performance of their building stock, developing and including in their strategies national measures aimed at **promoting the use of sustainable construction and renovation products, prioritising resource circularity and reducing the use of highly carbon intensive materials**.

These improvements should complement a **stronger policy focus to alleviate energy poverty at national level**. In light of the relevant provisions of the EED recast proposal, such as the obligation to achieve a share of the end-use energy savings among energy poor or vulnerable households and people living in social housing, Article 2a should be revised so as to include the requirement to develop national plans based on **key milestones for the renovation of the** 



**worst-performing buildings occupied by the energy poor and social housing**. This would also help Member States deliver on their energy savings obligations.

With a view to increase the effectiveness of the strategies and support their implementation, the revised LTRSs should also look at how to ensure technical assistance is streamlined on the ground. This could include the establishment of a **capillary network of one stop shops**<sup>3</sup> **at local level**, accompanying owners and occupants throughout the whole renovation journey, from the initial advice and energy auditing, to the financing and the contact with trusted professionals. Publicly-funded one-stop-shops should prioritise their activities towards those most in need, namely low income and vulnerable households as well as those living in energy poverty. At the same time, Member States should scale up **project development assistance for local authorities**, in order to help them develop local plans and identify suitable neighbourhoods for integrated renovation programmes. In this context, the involvement of local actors, citizens and civil society organisations in decision-making is key to ensure an inclusive planning that safeguards housing affordability.

#### CAN Europe calls for the revision of Article 2a by:

- Aligning the LTRSs with the climate neutrality goal
- Including national binding pathways towards a highly energy efficient and renewable-based building stock, linking each milestone with the planned measures to be introduced (e.g. MEPS)
- Linking the LTRSs with the heating-related provisions of the EED and RED, including a ban on fossil fuel installations in new buildings and a progressive phase out from the existing stock
- Introducing a whole life cycle approach in Member States' planning
- Developing national plans to alleviate energy poverty consistently with the provisions of the EED recast proposal
- Introducing measures to foster project development and technical assistance

<sup>&</sup>lt;sup>3</sup> There is currently no common understanding on what a one-stop-shop is, as the existing models across the EU are different in terms of e.g. structure, management and type of assistance provided. However, existing national practices are too scarce to support a substantial increase in deep renovation rates as needed to achieve the climate goals. Besides the heterogeneity of models, one of the main issues of one-stop-shops is that they are usually not economically viable from a private sector's perspective, so they need to be run by public bodies or be publicly funded and substantially supported. The European Commission, also in conjunction with the European Investment Bank, has different programmes in place (e.g. through the Recovery and Resilience Facility, InvestEU, the Smart Finance for Smart Buildings initiative, etc.) to support the setting up of one-stop-shops.



# Improving the Energy Performance Certificates

Over the past two decades, Energy Performance Certificates (EPCs) have played an important role in providing information on the performance level of the existing building stock. Their implementation has nonetheless been hindered by structural limitations that reduced the expected impact and prevented them from turning into more than just information tools. Through the improvement of the current framework, the EPCs could become important vehicles for raising awareness and triggering deep renovation decisions. To do so, their quality, reliability and transparency should be enhanced, while better comparability between the national approaches could help replicate best practices and facilitate investments in the sector.

Up-to-date, reliable and complete data on the performance of the whole EU building stock is key to implement effective policies aimed at improving the energy efficiency and decarbonising the sector (e.g. mandatory minimum energy performance standards, see below). In that sense, one of the major challenges to overcome is the low penetration of EPCs across the EU, partly due to the lack of a mandatory requirement for all buildings as well as improper enforcement. In only three Member States the share of the dwellings covered exceeds 15%, whereas in several countries that share is below 10%. In order to provide an accurate overview of the current status of the national stocks, the EPCs should become mandatory for all public and private buildings, introducing in the EPBD an obligation for Member States to ensure that their whole building stock is covered by 2030 at the latest.

To improve the quality of the information provided and foster users' trust, on-site visits and more stringent provisions on quality checks should become the norm. This will also increase the value of the EPC recommendations, which should always be tailored to the specific building's needs in order to guide the owner/occupant towards the measures needed to achieve deep renovation. In this way, the EPC could also possibly become a first step towards the development of a fully-fledged Building Renovation Passport.

Furthermore, **improved EPCs should be harmonised not only in terms of design and interface through a common template, but also in terms of scope and procedures**. Existing differences (e.g. in the definition of energy classes, qualification schemes for certifiers, quality control systems, national/regional registers, etc.) make it difficult to compare the national schemes. One example relates to the ranges that pinpoint each EPC energy class. Across Member States, in fact, the upper limit for class A goes from 15 to almost 300 kWh/m2.year, while the lower limit for class G ranges between 200 and 1150 kWh/m2.year. Increased convergence would also benefit EU-wide analyses and underpin the introduction of regulatory measures, provided that the information feeds into **accessible EPC databases at national level**.

While making EPCs more convergent, the EPBD revision should also look at expanding the information displayed so as to cover broader aspects that are relevant for improving the building's overall performance and support the uptake of deep renovations and renewable energy. This means including an indication of the annual greenhouse gas emissions associated with the energy use, together with information on the embodied emissions (e.g. based on the EU Level(s) framework), as well as the share of energy from renewable sources. Whenever feasible, EPCs should also promote renewable district heating by including information on the building's suitability for connection to a district system, such as for instance the distance from an



existing district heating grid and the flow and temperature of the heat distribution. Moreover, in order to help households undertake deep renovation, the EPCs should include information on funding opportunities and the available financial support.

#### CAN Europe calls for the revision of Articles 11 and 12 by:

- Making EPCs mandatory for all public and private buildings by 2030 at the latest
- Improving the quality of the information and the value of recommendations through better quality checks and on-site visits
- Ensuring national schemes become more convergent through a common template and more harmonised procedures
- Introducing the obligation to feed the data collected into accessible national databases
- Expanding the range of information to be included and displayed

# Future-proofing the Nearly-Zero Energy Building definition

According to Article 2 EPBD, a "nearly zero-energy building" is a building that has a very high energy performance, where the nearly zero or very low amount of energy required is covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby." In transposing the Directive, Member States have developed national NZEB requirements based on the EPBD definition and fostered the increase of the number of NZEBs at national level throughout the last decade. However, current provisions leave a wide margin of discretion in setting divergent national NZEB standards, resulting in a highly heterogeneous implementation across the EU.<sup>4</sup>

Considering that the NZEB definition included in the EPBD is of a qualitative nature, Member States have been free to set primary energy values for NZEBs that are substantially less demanding than the indicative benchmarks recommended by the Commission in both residential and non-residential buildings. Furthermore, the definition still allows for the installation of fossil fuels-based systems in new buildings, contradicting the objectives of the Renovation Wave strategy and running counter to the long-term goal of achieving a fully decarbonised building stock and a renewables-based-only energy system. Indeed, perpetuating the use of fossil fuel-based heating systems and fossil gas grids' connections in new buildings means locking households in higher energy bills and polluting technologies, while placing on them the burden of additional upgrade costs.

The buildings that are constructed now will stand for several decades ahead, and it is thus imperative to make sure that they are built consistently with the climate neutrality goal. As also recognised by the IEA's recent <u>Net Zero by 2050 report</u>, urgent regulatory measures are needed

<sup>&</sup>lt;sup>4</sup> The 2021 JRC report shows that NZEBs energy performance levels vary from 20 kWh/(m2y) (Belgium Flanders) to 132 kWh/(m2y) (Estonia) in new residential buildings, and 30 kWh/(m2y) (Belgium Flanders) and 176 kWh/(m2y) (Malta) in new non-residential buildings.



to make future-proof buildings the new norm, requiring governments to act well ahead of 2025 to accelerate the shift towards renewable heating and cooling systems while complying with the energy efficiency first principle.

Hence, a future-proof EPBD should enshrine a new NZEB definition that ensures highly energy efficient and net-zero-energy/positive energy buildings. This implies anchoring the new definition to binding thresholds or ranges for minimal primary energy use in new buildings, differentiated according to the different EU climatic zones, thereby going beyond the indicative nature of the <u>current benchmarks</u>.

Ambitious maximum values for primary energy use should be accompanied by the requirement of a 100% share of renewable energy in new buildings, which should thus be fossil fuel-free from 2025 at the latest. A broad range of alternative renewable energy sources are already available and should be made an integral part of all new constructions, such as renewable electricity (either produced on-site through rooftop PVs or nearby) that powers electric heat pumps, capturing ambient and geothermal heat, as well as solar thermal heat. Every time a new building is constructed, the feasibility for connection to an existing or planned renewable district heating network should also be assessed.

Finally, a revised NZEB definition must ensure that new buildings reduce their overall environmental impact by addressing the material use and fostering resource efficiency in the construction process. To this end, **numeric ranges on the whole life cycle performance of new buildings (e.g. based on the EU Level(s) framework) should be introduced with a view to reduce the embodied emissions and promote the use of more sustainable materials, including low carbon and nature-based materials such as sustainably-harvested wood or cellulose-based solutions, and secondary raw materials.** 

#### CAN Europe calls for the revision of Articles 2 - 2a - 9 by:

- Setting binding thresholds or ranges for minimal primary energy use in new buildings
- Introducing a requirement of a 100% share of renewable energy in new buildings, halting the installation of any new fossil-fuel-based heating systems by 2025 at the latest
- Introducing requirements to promote sustainability and circularity in the construction sector, such as numeric ranges on the whole life cycle performance of new buildings



# **TOWARDS AN ANNUAL 3% DEEP RENOVATION RATE**

# Introducing mandatory minimum energy performance standards

As announced in the Renovation Wave Communication, the Commission intends to introduce mandatory minimum energy performance standards (MEPS) as part of the EPBD revision, following an impact assessment looking at their scope, timeline and phasing in. Enshrining more stringent regulatory measures to foster deep renovations is absolutely critical to reduce the energy demand from the building sector, as demonstrated by the <u>persistently low rates of deep</u> renovations in all Member States.

The current cost-optimal levels for minimum requirements<sup>5</sup> are insufficient to foster the renovation of the existing stock at the scale needed to achieve the higher 2030 and 2050 climate ambition, even less to be in line with the Paris Agreement's goal. The <u>comparative</u> <u>methodology framework</u> that the Member States need to apply for calculating the cost-optimal levels does not require to take into account the quantified costs of the greenhouse gas emissions stemming from buildings' energy use, thus lowering the ratio between costs and benefits and reducing the level of ambition of the requirements based on such a methodology. Besides, the lack of a mandatory nature and the loose trigger point (i.e. major renovation) have prevented the increase in the rate and depth of building renovations, while contributing to the <u>delivery gap towards the 2020 energy efficiency target</u>. To overcome this deadlock, <u>several Member States have introduced MEPS</u> at national level with a view to operationalise the pathway towards a highly energy-efficient and decarbonised building stock and providing investment security on the destination of the existing building stock.

It is now up to the Commission to **introduce ambitious and mandatory MEPS in the EPBD**, drawing from the existing national practices and providing an overarching and consistent framework for all Member States. **MEPS should cover the whole building stock, including the residential sector**. Indeed, by tackling the worst-performing buildings, <u>MEPS would contribute to lifting households out of energy poverty</u> by securing lower energy bills and healthier homes.

As part of the LTRS (see above), each Member State should develop consistent roadmaps for the national implementation of MEPS, based on milestones for the performance levels to be achieved by the different segments of the stock, progressively tightened over time. The timeline for their enforcement should be set in accordance with the climate neutrality objective and the long-term goal to achieve a highly energy efficient and renewable-based building stock in line with the Paris Agreement. In this context, Member States would benefit from the development of ad hoc guidelines by the Commission accompanying the EPBD proposal, in order to support them in designing and implementing MEPS at national level.

Coherently with the energy efficiency first principle and the pivotal aim of substantially reducing buildings' energy demand, **MEPS should be linked to the deep renovation definition** (see

<sup>&</sup>lt;sup>5</sup> According to the <u>latest JRC report</u>, the average cost-optimal level is 80 kWh/m2/year for new residential sector, 140 kWh/m2/year for the new non-residential, 130 kWh/m2/year for existing residential and 180 kWh/m2/year for existing non-residential.



below), **prioritising a one-step approach in order to ensure that buildings are renovated to the highest performance levels in the most cost-effective way**.<sup>6</sup> Furthermore, as a basis for their implementation, MEPS could make use of the Energy Performance Certificates, provided that existing schemes are improved and strengthened coherently to support an effective roll-out (see above). Indeed, grounding the progressively-tightened MEPS to the EPC classes will facilitate the communication of the standards while streamlining the monitoring of compliance.

To ensure that MEPS overcome the limitations of the existing minimum requirements, the cost-optimality approach should also be revised accordingly, reflecting all the multiple environmental, social and economic benefits linked to energy efficiency measures. As a minimum, this requires including the costs associated with buildings' greenhouse gas emissions in the calculation methodology.

As a general rule, MEPS should not be conceived as a stand-alone measure, but rather they must be embedded in a **supportive framework that provides appropriate funding to low income and energy poor households, as well as practical assistance and adequate financial incentives and support** to adopters ahead of the compliance dates. <u>Social safeguards and measures aimed at preserving housing affordability</u> should also be developed at national and local level to address any potential distributional impact.

CAN Europe calls for the revision of Articles 1-2-4-5 and/or for the introduction of a New Article by:

- Introducing mandatory MEPS for the whole building stock,
- Linking MEPS to an ambitious deep renovation definition
- Setting a binding timeline for progressively tightened MEPS in line with the climate neutrality goal
- Ensuring adequate technical and financial assistance as well as funding for those who cannot afford deep renovation
- Revising the cost-optimal methodology

<sup>&</sup>lt;sup>6</sup> As also recognised by the IEA in its <u>Net-Zero by 2050 report</u>, staged renovation lowers the cost-effectiveness of the energy savings to be achieved and causes more disruption compared to one-step deep renovation, as households need to carry out subsequent rounds of works, thereby having to pay higher total final costs and being discouraged from the implementation of the additional measures needed to achieve the highest levels of energy performance. The staged approach heightens the risk of lock-in effects and technical deadlocks, hindering energy savings and carbon emissions reductions, while raising the embodied emissions due to several interventions occurring on the same building. Only in those instances where deep renovation is not achievable in one step, the staged approach could be envisaged as part of a plan to achieve progressively deep renovation.



# Setting a deep renovation definition

An ambitious deep renovation definition, which is currently missing from the policy framework, would provide clarity for all the actors involved on the end goal of building renovations, while steering investments towards those measures that ensure the highest amount of energy savings.

Deep renovation is generally understood as <u>a renovation that leads to significant (typically more than 60%) efficiency improvements</u>. Alternatively, <u>the Commission also refers to deep renovations</u> as those interventions leading to refurbishment that reduces both the delivered and final energy consumption of a building by a significant percentage compared with pre-renovation levels, leading to very high energy performance. However, none of these provisions entail a legal definition of deep renovation, thereby hindering the effectiveness of those regulatory measures that aim to support its uptake. In addition, the reference to at least 60% energy savings is not in line with the ambition to achieve a highly energy efficient and decarbonised building stock by 2050. Already back in 2013, <u>state-of-the-art technologies in the EU could reduce the energy consumption of a building by more than 75%</u>.

Existing European buildings still show a high average annual consumption around 200 kWh/m<sup>2</sup> (300 kWh/m<sup>2</sup>.y in the commercial sector and 170kWh/m<sup>2</sup>.y in the residential one). If deep renovation is defined just as a relative reduction of the energy demand of a building, it risks putting a cap on the level of ambition of the measures based on such a definition and undermining the capacity to tap into the full energy efficiency potential of the majority of existing buildings.<sup>7</sup>

For these reasons, the revised EPBD should introduce a definition of deep renovation based on the achievement of minimal primary energy needs after renovation, including a reference of at least 75% primary energy savings. The deep renovation definition should also be clearly connected to MEPS in order to provide an adequate level of ambition and a clear benchmark for assessing the energy efficiency measures that will be carried out to comply with the standards.

CAN Europe calls for the revision of Article 2 and/or for the introduction of a New Article by:

- Introducing a deep renovation definition based on the achievement of minimal primary energy needs after renovation
- Setting a reference to at least 75% primary energy savings
- Making sure that MEPS are linked to the deep renovation definition

<sup>&</sup>lt;sup>7</sup> Considering a 60% energy savings threshold for a possible deep renovation definition, the energy needs of a deeply renovated building would be around 120 kWh/m<sup>2</sup>.y (180 kWh/m<sup>2</sup>.y for an average commercial building and 102 kWh/m<sup>2</sup>.y for an average residential building), thus a considerably higher consumption than what is considered as a highly performing building and surely not enough to achieve the climate goals.

