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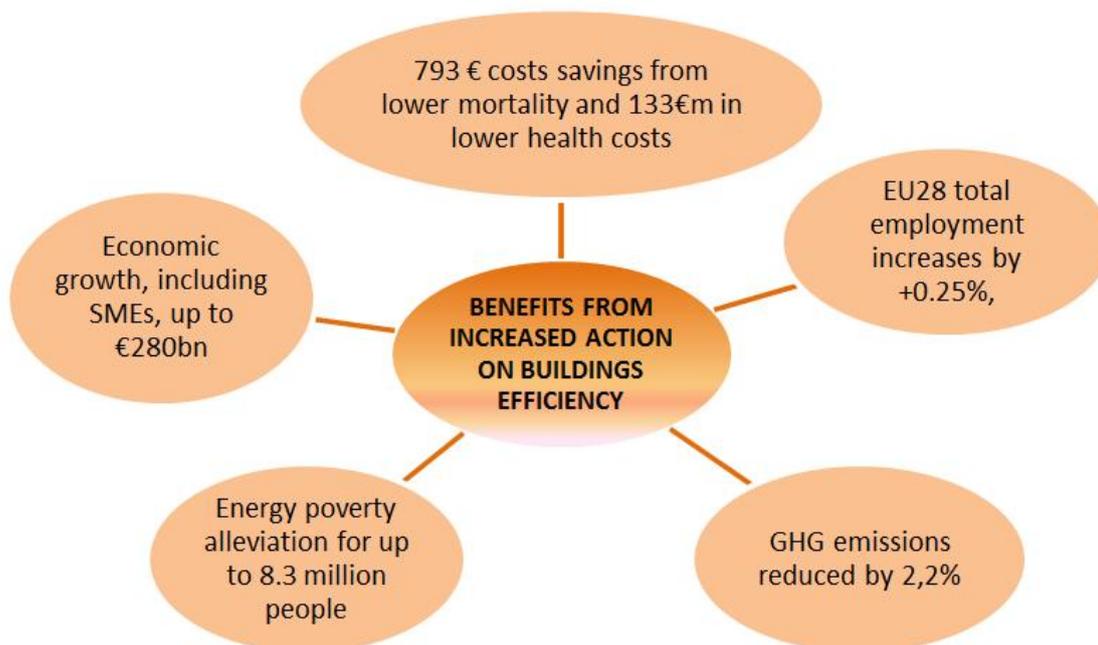
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Position Paper on the Revision of the EPBD

The building sector has a clear and direct impact on everyone's daily life and wellbeing. From a purely private perspective, every family has to make regular choices about its home based on comfort and affordability. From a societal perspective, the energy used in the building sector is a significant source of greenhouse gas emissions and air pollutants. The energy used by buildings also influences debates about 'keeping the lights on' and wider energy security concerns.

Therefore, any legislation on buildings must take into account the needs of the consumers (i.e., the buildings users) whilst also helping to address societal issues that have a broader impact on all of our lives. Fortunately, the individual and the societal perspectives are not too difficult to reconcile in this area. Improving energy efficiency in buildings will improve the occupants' comfort and health, reduce their energy bills, increase employment and economic growth, reduce emissions, improve air pollution and lessen our dependency on energy imports.

Benefits of an ambitious EPBD revision in 2030¹



CLEAN ENERGY FOR ALL EUROPEANS: WHAT'S THE ROLE FOR THE BUILDING SECTOR?

The European Commission's package "Clean Energy for all Europeans" highlights the crucial role the building sector can play in the energy transition by reducing emissions at the same time as boosting the construction industry and improving citizens' living conditions. However, while getting the narrative right and pointing to the key bottlenecks that impede the transformation of buildings in truly efficient assets, the Commission fails to propose the solutions that will drive the change in the sector we need, at the pace required.

WWF believes that the **number one priority for the building sector is to drastically reduce the energy consumption of existing buildings, by increasing the rate and depth of renovations. In parallel, the integration of buildings in a well-functioning renewables-based energy system must be supported to ensure that the remaining energy needs of the building stock are supplied by clean and sustainable energy.**

This paper provides some recommendations on how the European Parliament and the Council of the European Union can make this happen when adopting the revised Energy Performance of Buildings Directive (EPBD). An improved and stronger

¹ All data are taken for the Commission's Impact Assessment (IA). These figures are the macroeconomic impacts resulting from a revision of the EPBD in line with Option III in the IA compared to the reference scenario. Current Commission's legislative proposal is in line with Option II of the IA, which only proposes limited change to the current text and therefore has reduced benefits.

EPBD is crucial to deliver additional energy savings and will therefore contribute to achieving the overall energy efficiency 2030 target established in the Energy Efficiency Directive (EED), which WWF believes should be set at 40%.

DEFINING A CLEAR LONG TERM VISION FOR THE BUILDING STOCK IN 2050

The building sector is responsible for about 40% of energy consumption and 36% greenhouse gas emissions in the EU. To comply with Paris Agreements' commitment, action in the building sector needs to be urgently scaled-up.

What does the Commission proposal include?

Member States are required to establish a roadmap to decarbonise their national building stock by 2050, with specific milestones for 2030 (new Article 2a in the EPBD Review proposal, it amends current EED Art.4 and moves it into the EPBD).

How can the proposal be improved?

- The Commission's proposal is a positive starting point, but **it should be strengthened by further defining this long-term target for 2050**. The concept of decarbonisation remains too vague, as it can be open to different implementation at the national level.
- Decarbonisation should be spelled-out by explicitly referring to i) a **drastic reduction of energy consumption in the building sector** through efficiency measures, ii) the use of **renewable energy** to cover the remaining energy needs of the building stock and iii) the **integration of the building sector into a flexible and renewables based energy system**.
- An "at least 80%"² reduction of energy consumption of the overall buildings stock by 2050 should be the goal and clearly included in the long-term renovation strategies to ensure clarity and monitoring of national progress.

Why?

Buildings are crucial to contribute to full decarbonisation of our society by the middle of the century in line with the Paris Agreement. The long-term renovation strategies should be the key planning tool to make this happen in the building sector by ensuring that emissions become close to zero thanks to efficiency and renewables.

What are the benefits?

- A clear long-term goal will help the planning and sequencing of measures at the national level, while also contributing to the boosting of stakeholder support thanks to increased transparency.

² The 80% reduction refers to final energy used for space heating compared to 2010 level, see Ecofys "Renovation tracks for Europe up to 2050" available at <http://bit.ly/2nvEYZG> and The Policy Partners "Renovation Roadmaps for Buildings," available at <http://bit.ly/2nOlnVq>. To take into account the increased level of ambition needed following the entering into force of the Paris Agreement, higher level of energy reduction should be required.

- A measurable long-term goal is essential to mobilize financing by giving investors and other market actors certainty on the direction and final destination of the transition.

What examples do already exist?

In their long-term renovation strategies, some Member States have already fixed their own long-term goals:³

- Ireland has an objective of reaching a nearly zero emissions building stock by 2050.
- France has an objective of reducing 60% of final energy consumption by 2050 compared to 2010.

RENOVATION AT TRIGGER POINTS

In the lifetime of every building, there are key opportunities to carry out a renovation that should not be missed (“trigger points”), for example when a building is rented, sold, changes its use, is extended, undergoes maintenance work, or structural retrofitting. Energy renovations in these occasions are less disruptive and costly than in other moments.

What does the Commission proposal include?

The current EPBD only sets requirements to increase the performance of a building when the owner decides to carry out a renovation, but does not foresee any provision to accelerate the rate of renovations. The EPBD review proposal fails to change this; however, its impact assessment evaluates this possibility and finds that introducing minimum performance requirements before a building is sold or rented would help reduce energy and emissions, improve health and wellbeing of occupants, and boost the competitiveness of the European construction industry.

How can the proposal be improved?

- **Art.2a should be amended to require MSs to introduce renovations requirements at trigger points in their legislation** to start renovating the worst performing buildings to ensure none are left in the lowest efficiency categories as of 1st January 2023. This should become a key vehicle to achieve a decarbonised building stock by 2050 within the long-term renovation strategies;
- MSs should decide what are the trigger points they want to target (sale, rental, change of use, etc) as well as which segment of the building sector they want to tackle first (commercial or private stock, social housing);
- MSs will be left free to tailor this obligation to their national building stock and will be able to allow a gradual phase in of stricter minimum energy performance requirements to be met at trigger points;

³ The following, and additional, examples can be found in “Energy Transition of the EU Building Stock - Unleashing the 4th Industrial Revolution in Europe”, by Yamina Saheb, page 42, available at <http://bit.ly/2lKJT88>.

- The obligation to reach minimum performance requirements should be introduced in a stable and clear renovation strategy to ensure proper planning and preparation and be coupled with a well thought out system of different financial support schemes to help building owners. Dedicated measures and financial support should be put in place for citizens with lower income and the energy poor to avoid negative effects on this part of the population.

Why?

- At the current renovation rate, which is only 1% per year, the building sector will continue to waste energy and be a major source of GHG emissions for several decades. A combination of regulatory measures and incentives is needed to tackle this problem and boost renovation rates.
- Voluntary measures, even if coupled with financial support, are not enough to increase the renovation rate at the level we need to ensure the building sector fully contribute to the energy transition in line with Paris climate ambition
- **Renovations at trigger points need forward planning to ensure they are supported**; so it makes sense to plan their introduction in national strategies that set the policy steps and financing measures a country plans to take to deliver its 2050 decarbonisation objective.

What are the benefits?

According to the Commission's EPBD impact assessment, introducing in legislation minimum performance requirements at point of sale or rent would:

- Reduce total final energy in 2030 by 40-45 Mtoe
- Contribute to the competitiveness of European industry by increasing associated construction activity by between €50bn and €55bn per year between 2020 and 2030.
- Non-energy benefits resulting from building renovations include improving the everyday life and productivity of occupants. But these benefits are often undervalued because it is difficult to quantify the positive impacts on health and productivity of a more efficient building.

What examples do already exist?⁴

- In France, the energy transition Law requires that by 2025 all privately owned residential buildings with energy consumption greater than 330Kwh/sqm/per year must be renovated and to upgrade the energy performance of external façades and roofs when maintenance or improvement work are planned.
- In the **UK, buildings in the lowest two bands of the energy performance certificate cannot be rented from April 2018 onwards.**
- In The Netherlands, a requirement for all office buildings to achieve by 2023 an energy performance equivalent to the C level of the Dutch Energy Performance Certificate is being adopted.⁵ Currently, 52% of office buildings have a performance rating of lower than C and will need to undergo energy renovations; the pay-back period for those renovations is estimated to be between 3 and 6.5 years.⁶

⁴ The following, and additional, examples can be found in BPIE's study "Renovation in practice" available at <http://bit.ly/2IKpKQM>.

⁵ This is included in the National Energy Agreement, see Kamerstuk 30 196, no. 485.

⁶ EIB, ECN, Verplicht energielabel voor kantoren, available at <http://bit.ly/2nvGziu>.

SMARTNESS INDICATOR

Buildings' energy use should be minimised at the "design phase" (construction or renovation). At the same time, it is also crucial that actual energy use is monitored and regularly adjusted to reduce consumption in the "operation phase." Also, buildings must become fully integrated into the energy system and ensure that their occupants can play an active role in that system. This will help to transform the energy system from one that is centralised to one that is decentralised by maximising the synergies between energy efficiency and renewables.⁷

What does the Commission proposal include?

The Commission proposes to include a "smartness indicator" for buildings in Art. 8.6 of the EPBD. This should rate the readiness of a building to adapt its operations to the needs of the occupants and of the grid and to improve its performance; it will allow better and smoother interconnection of buildings' systems with the grid. The details about the smartness indicators, including how it will be provided to prospective tenant or buyers, will be defined through delegated acts by the Commission. There is no clear date about when this is supposed to happen.

How can the proposal be improved?

Buildings must become crucial components of a smart energy grid by reducing and optimising energy consumption at the design and operation phase, enhancing demand response and storage to smoothly integrate renewable energy. The key features of the smartness indicator should be defined in the EPBD and these should reward, as a minimum, functionalities that ensure:

- Reduction of energy consumption in the operation phase: the presence of building automation, electronic monitoring and integrated control of buildings devices to maintain comfort and inform building's owners/managers about existing inefficiencies or the need for repairs to contribute to the reduction of the building's operational energy use.
- Participation in demand response, charging of electric vehicles and hosting energy storage systems: buildings must be fully integrated into the electricity grid and the heat market in a way that allows their occupants to actively engage with these systems.
- User-friendliness: information is often available but not easy accessible to a building's users; this is clearly a barrier for consumer engagement. Solutions and technologies must be easy to understand, easy to operate, easy to use and easy to maintain, particularly when it comes to residential users.⁸

Also, the features of a smartness indicator should take into account the differences between different type of buildings, particularly residential and commercial ones. While for the residential stock user-friendliness is an imperative,

⁷ On this see BPIE's publication "Smart buildings in a decarbonised energy system" available at <http://bit.ly/2i96Ssj>

⁸ ICT For Low Carbon Economy, Smart Buildings, page 21 available at http://ec.europa.eu/information_society/activities/sustainable_growth/docs/sb_publications/smartbuildings-ld.pdf

for large commercial buildings building automation or interaction with the grid will definitely be more important characteristics.

More broadly, the proposal to revise the Electricity Directive⁹ should also create the supporting framework for smart buildings, and should include:

- Ensuring dynamic pricing: Dynamic electricity prices reflect the real time value of energy and are necessary to encourage consumers to adapt their consumption.
- Rules for aggregators¹⁰: to enable residential consumers to engage in the electricity and heat market, the development of aggregators needs to be facilitated and supported by the Electricity market Directive.

Why?

- Smarter buildings are also part of the pathway to a decarbonised building stock by reducing demand and increasing use of renewables through enabling integration with the energy system.
- If consumers have to actively participate in the energy market, they must have the right tools to do so, including at building level.

What are the benefits?

- Empower building owners to reduce and adapt their energy use during the operational phase – helping buildings to become a resource for the energy system.
- Large commercial buildings can play an active part in the energy system by providing a balancing role (especially for electricity) and flexibility.
- At the moment of rental or change of ownership, the smartness indicator will reward smart buildings and create a market push that will support their uptake.¹¹

ENERGY ADVICE THROUGH ONE-STOP-SHOPS

Consumers (building owners, occupiers or intermediaries) need to be supported in their path towards efficiency refurbishments, particularly deep energy renovations. Easily accessible, timely and tailored advice that covers all steps of a refurbishment, from planning, to selection of technologies to financing, practical delivery and monitoring and feedback on results is crucial to making sure deep renovation happens.¹²

⁹ Proposal for a Directive of the European Parliament and of the Council on common rules for the internal market in electricity (recast), COM/2016/0864 final/2 - 2016/0380 (COD)

¹⁰ Aggregators are able to combine multiple customer loads (or generated electricity for sale), for purchase or auction in any organised energy market; without aggregators most customers would not be able to participate in the energy market.

¹¹ See EPBD impact assessment, page 81.

¹² For a detailed analysis of energy advice, please refer to Catrin Maby, Louise Sunderland, Rod Janssen "Efficiency First means Consumers First: the crucial role of energy advisory services in realising the EU's energy ambitions", 27 September 2016, available at <http://bit.ly/2INrWGn>. This section of the paper extensively draws from their work and expertise.

What does the Clean Energy Package include?

The Communication “Accelerating Clean Energy in Buildings¹³” suggests that “the Commission will encourage MSs to put in place dedicated local or regional one-stop-shops for project developers, covering the whole customer journey from information, technical assistance, structuring and provision of financial support, to the monitoring of savings.” However, this is not supported by the legislative proposals.

How can the proposal be improved?

- **Member States must be required to set up advisory services/one-stop-shops for consumers**, in the EPBD Article 20 on “Information”, rather than just being encouraged to do so. This will contribute to successfully implementing and delivering long-term renovation strategies (Art. 2a)
- A definition of advisory services should be included in the EPBD (Art. 2). This should encompass the provision of tailored advice to consumers which “must include information/advice on not just technical but also on legal, financial and behavioural elements.”¹⁴
- Advisory services should ideally be provided through one-stop-shops close to the consumer to ensure he/she finds all the relevant information provided in a commercial independent way in the same place, including financial support available, list of certified experts, etc.

Why?

- There are many barriers to decarbonising the building stock, including the fact that the achievement of this objective depends on a myriad of individual renovation decisions. To ensure that the required refurbishments take place in a timely manner, **consumers must be helped through the process by receiving tailored advice that makes renovations easier**. In particular, to ensure the renovations required by trigger points happen in the smoothest way possible, consumers need support and assistance at the right time with their refurbishment process.

What are the benefits?

- Advisory services enable consumers to undertake renovations that would otherwise not happen and enable consumers to achieve deeper renovations. An evaluation of the French PRIS programme found that 55% of the respondents carried out deeper renovations than initially planned thanks to the advice they received.

What examples do already exist?

- Point Renovation Info Service¹⁵ is France’s national network of 450 information centres funded jointly by Ademe, France’s environment and energy management agency and local authorities. The advice centres are supported by a national website and telephone line. A full case study was recently published by WEC.¹⁶

¹³ European Commission, “Accelerating clean energy in buildings,” COM(2016) 860 final, ANNEX 1.

¹⁴ Maby, Sunderland and Janssen, 2016, page 8.

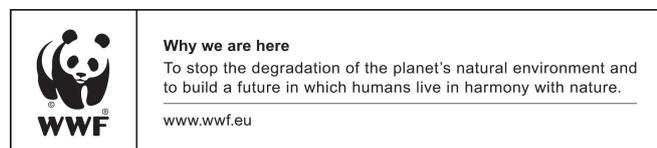
¹⁵ <http://www.renovation-info-service.gouv.fr/trouver-un-conseiller/step1>

¹⁶ <https://www.wec-policies.enerdata.eu/Documents/cases-studies/WEC-case-study-one-stop-shop.pdf>

- Guichet Energie Wallonie in Belgium¹⁷: citizens can benefit from tailored, commercially independent, and free advice from one of 16 focal points across the Region to get help to them carry out their renovation projects. These focal points can provide answers to technical administrative and regulatory questions.

CONCLUSIONS

A revision of the EPBD that does not improve Commission's proposal would be a missed opportunity and would limit the energy savings potential of the building sector for the next decade. Amendments in line with WWF's suggestions will contribute to an increase in renovation rates for the existing building stock that will benefit European citizens, the economy and the climate.



¹⁷ See <http://energie.wallonie.be/fr/guichets-energie-wallonie.html?IDC=6946>

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