POSITION PAPER

24th June 2021

Reality and challenges of the decarbonisation of the building stock

Housing Europe view on the revision of the EPBD

While the decarbonisation of the building stock is under way in most parts of the EU[1], questions remain about its drivers, pace and distributional effects. Looking at the trends in terms of reduction of CO2 emissions per m2 since 1990 and policy mix in various European countries, the first lesson we can draw is that there is not a single successful approach to decarbonisation. Countries have all seen a decrease in CO2 emissions per m2 while adopting different policies. Regarding the pace of decarbonisation, it depends on several factors including the proportion of recently built buildings: the higher the proportion of newly built homes, the stronger the decrease of average CO2 emitted per m2. Another lesson is that social housing providers have made significantly more progress on scaling up renovation programmes than the private sector proven by the fact that the amount of CO2 emitted per m2 in the social, cooperative and public housing sector has decreased by over 40% since 2005. Eventually on the distributional effects, while the long-term benefits of having better insulated homes with greater summer comfort are clear, the short to medium impact of costly renovations on affordability of living is yet to be fully analysed. As this will be one of the keys to a successful decarbonization of the building stock, the impact assessment of a revised EPBD should go in depth on that aspect.

A. The introduction of Minimum Energy Performance Standards (MEPS)

In some countries, with no or little financial incentives to renovate, MEPS could play a role, but in countries where policies for energy efficiency do exist, the added value is less clear. In any case the conditions should be the following:

1. Conditions should not undermine national existing schemes and create regulatory confusion;
2. They should be applied with the right timing and auxiliary policies, i.e. leave sufficient time for member states to implement the most appropriate measures and for the renovation and construction sector to strengthen innovation and skills;
3. They should be accompanied by adequate (public) funding in order to avoid the increase of rents that would make it unaffordable for most of the current residents (bearing in mind that there is also a clear need for new affordable homes);

[1] For a comparative analysis of the evolution of the decarbonization of the building stock in 5 European countries: https://www.hautconseilclimat.fr/wp-content/uploads/2020/11/hcc_rapport_renover_mieux-english.pdf

Housing Europe – The European Federation for Public, Cooperative and Social Housing
Square De Meeus 18, 1050 Ixelles, Brussels, Belgium
communications@housingeurope.eu |+32 (0)2 541 05 64 | www.housingeurope.eu

4. They should allow a flexible approach to ensure that social housing providers have the freedom to determine what measures they take to comply with MEPS;
5. They should focus only on the homes with the worst energy labels (E/F/G). This is also where the highest CO2 savings can be achieved. This is also where tenants can benefit most from reductions in energy bills;
6. They should take into account the most appropriate moments of the life-cycle of the buildings (for instance, points of sales or rents for multi-family buildings do not make sense from the perspective of the renovation activities);
7. The social mission of the social housing providers (providing new affordable homes to meeting growing and evolving housing needs) should be supported as the same time.

B. The introduction of carbon indicators to promote the decarbonisation of the building stock

Social housing providers have been innovating to decarbonise the building stock in different ways:

- Combination of optimal insulation works with improvement and decarbonisation of the heating systems (for instance going from individual gas boilers to district heating using biomass);
- Reuse of material and circular solutions;
- Life cycle assessment: assessment of the carbon emissions at the different phases of the life of a building, including C02 embedded in the material.

As a result, the amount of CO2 emitted per m2 in the social, cooperative and public housing sector has decreased over the last decade by 40% on average. The drivers for this decrease are multiple: more energy efficient building envelopes and energy systems, decarbonised energy mix but also strong relationships with residents that allows a mitigation of rebound effect.

Consequently, integrating a CO2 indicator in the EPBD would follow a practice already under way in the sector (in particular for the new buildings) and makes sense from the point of view of the end goal of reducing the amount of CO2 emitted by the housing sector. Energy efficiency investments encounter 2 limits: users' behaviour and the carbon content of the heating and cooling sources. Considering CO2 would help to overcome those limits. However, it would be most appropriate for the new buildings and therefore not for MEPS.

As for MEPS, we need to be careful about the type of measures that will be taken at the EU level. The EU level has to encourage the use of CO2 indicators as a way to control those renovations will lead to actual CO2 emissions reduction.

Housing Europe – The European Federation for Public, Cooperative and Social Housing
Square De Meeus 18, 1050 Ixelles, Brussels, Belgium
communications@housingeurope.eu |+32 (0)2 541 05 64 | www.housingeurope.eu

C. The necessary financing of the fair energy transition

In order to renovate the entire social, cooperative and public housing stock in Europe by 2050 at average level B (60 to 120 kwh/m²/year) or A (below 50kwh/m²/year), thus contributing to the decarbonization of the building stock and a CO2 neutral Europe, we would need an extra 10bio€ yearly until 2050 (ie. on top of the business as usual level of investment in renovation and maintenance of 13bio€/year).

This is based on current information regarding the costs. Obviously it is hard to estimate how the cost will evolve. In some countries costs of renovation are increasing above inflation, in others slightly below. An expectation of sharp increase in the cost of renovation materials due the consequences of the COVID crisis should be considered.

The renovation of 4 million homes would besides contribute to the creation of 1 million jobs, reduction of energy bills of up to €700 per year per household and the saving of health-related costs linked to too cold or too hot homes that could go up to €48 per year per household.

The investment support has to take the form of non-repayable subsidies, subsidised loans and pubic guarantees, in order to ensure affordability, since in the social housing sector, while the societal benefits of renovation are clear, there is no automatic self sustaining business case for energy efficiency investments : the financial payback time will eventually depend on the cost of material used for renovation, it is hard to predict the evolution of prices of material which are currently increasing), the quality of works done, the cost of energy (which in theory should increase because of the consideration of carbon) and tenants behaviour and preferences. All this makes it hard to have short term positive return on investment. The public authorities should therefore consider that investing in energy efficiency is a public mission and provide the adequate support.

Conclusion

We share the view of the Council of Ministers, which in its June conclusions[2], stresses the need to introduce and adapt these standards to the specific conditions and priorities of individual Member States, to ensure affordable construction, renovation and living, with regard to technical aspects such as climatic conditions, resource availability, building stock, heating and cooling, and ownership structure, as well as social aspects such as public support, public participation, education and employment".

The decarbonisation of the building stock is a long-term process which needs to build on local strategies and residents' involvement. There is no unique policy mix that can lead to decrease

[2] https://www.consilium.europa.eu/en/press/press-releases/2021/06/11/council-approves-conclusions-on-an-eu-renovation-wave/

Housing Europe – The European Federation for Public, Cooperative and Social Housing
Square De Meeus 18, 1050 Ixelles, Brussels, Belgium
communications@housingeurope.eu |+32 (0)2 541 05 64 | www.housingeurope.eu

of CO2 emissions per m² in the building sector[3]. Legislation can be effective if it is accompanied by an enabling framework. The revision of the EPBD should be carefully framed in order to avoid negative consequences on affordability. That is what social, cooperative and public housing providers are committed to with the 4 million ambition by 2030[4].

[3] See for instance; https://www.hautconseilclimat.fr/wp-content/uploads/2020/11/hcc_rapport_renover_mieux-english.pdf

[4] https://www.housingeurope.eu/resource-1471/housing-europe-s-ambition-to-renovate-4-million-affordable-homes-by-2030

Housing Europe – The European Federation for Public, Cooperative and Social Housing
Square De Meeus 18, 1050 Ixelles, Brussels, Belgium
communications@housingeurope.eu |+32 (0)2 541 05 64 | www.housingeurope.eu