

EED & EPBD reviews

Activating the Renovation Wave to meet the EU's climate ambition

It is Glass for Europe's conviction that to achieve the ambitious target on CO₂ emission reduction of at least 55% by 2030 as proposed by the European Commission¹, drastic cuts in buildings' energy consumption and related emissions are needed in Europe. The carbon budget left is limited, and swift actions are needed today in terms of energy savings in the building sector to mitigate global warming and not to lock in emission levels incompatible with the climate neutrality objective. Up to 37% of the total energy consumption in the EU building stock can be saved in 2050 thanks to high-performance glazing products.

The Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD) are the backbone of the European Union policy for energy efficiency in buildings. To Glass for Europe, this approach needs to be preserved because **the reduction of energy demand in buildings is the main instrument to ensure that long-lasting CO₂ emission reductions are achieved while buildings' occupants enjoy the multiple benefits of renovation.**

Yet, one must also acknowledge that the European Union has missed its energy efficiency target in 2020 by more than 3 percentage point and is expected to equally miss it in 2030² with the current objective set at 32.5%. **EU buildings remain the largest energy consuming sector in Europe, where strong efforts are needed for a revised 2030 energy efficiency objective.** To Glass for Europe, this is because the current EU legislative framework has proven effective for new constructions but has missed to trigger energy-efficient renovations of buildings. Renovation is not happening in sufficient quantity³ and when it does take place, sub-optimal products are often used due to a lack of legal or financial incentive and/or information to consumers.

To Glass for Europe, the state of the EU building stock and the low renovation rates observed to date call for a major upgrade of the existing policy framework and in particular the strengthening of both the Energy Efficiency Directive (EED) and Energy Performance of Buildings Directive (EPBD).

The publication of the EU "*Renovation Wave*" has the merit to provide a clear picture of the challenges ahead. However, the European Commission now needs to come forward with regulatory proposals that go beyond the mere suggestions of the Renovation Wave communication if it wants to double the building renovation rate and increase the performance of products installed in its buildings. **To Glass for Europe, these two objectives call for specific and novel measures in both the EPBD and the EED, as presented in the next pages.**

Glass for Europe is the trade association for Europe's flat glass sector. Flat glass is the material that goes into a variety of end products, primarily in windows and facades for buildings, windscreens and windows for automotive and transport as well as solar energy equipment, furniture and appliances. Glass for Europe brings together multinational firms and thousands of SMEs across Europe, to represent the entire building glass value-chain. It is composed of flat glass manufacturers, AGC Glass Europe, Guardian, NSG-Group and Saint-Gobain Glass Industry, and works in association with national partners gathering thousands of building glass processors and transformers all over Europe.

¹ European Commission, 2020, Proposal for a 2030 Climate Target Plan: *Stepping up Europe's 2030 climate ambition*, COM(2020) 562 final.

² European Commission "2030 climate target plan" impact assessment.

³ 97% of today's building will have to be renovated by 2050 to achieve climate neutrality, while less than 1% of buildings are renovated in Europe every year.

Doubling the renovation rate across Europe

Triggering a massive wave of renovation of buildings and sustaining it over the long-term, requires a mix of policy instruments ranging from regulations, renovation incentives, and new financial models. When regulations can be designed for public sector for example, complementary instruments must be considered to activate larger market segments, such as small property owners. All the below instruments are complementary and needed across the entire European Union:

- ▶ **National renovation plans conceived to meet a mandatory minimum annual renovation rate of 3% per year** with reporting of progress to European Commission services to monitor national plans' effectiveness.
- ▶ New and innovative financial mechanisms must be introduced, including **the creation of a specific *Renovation Fund for Buildings* to finance public and private renovation projects** throughout Europe.
- ▶ **Massive investments by the public sector** in the renovation of public buildings at the highest performance standards. Schools, social housing, and hospitals should be prioritised.
- ▶ **Effective renovation incentives to small property owners to invest in building renovation and replacement of inefficient building components** with a large impact on energy performance. For instance, **incentives to window retrofitting should be generalised** in all Member States.
- ▶ **Mandatory minimum requirements for buildings** attached to trigger points in the lifetime of buildings, such as property transfers, changes in rentals, etc.
- ▶ **Transparent advisory tools on energy efficiency renovations** and financing instruments, for example 'one-stop-shops' easily accessible to property owners and technical advices for the planning of gradual construction works.
- ▶ **Adequate taxation regimes for landlords** investing in energy saving renovation to incentivize renovation works primarily benefiting tenants. These support schemes could be linked to clauses on rent moderation to avoid risks of '*renoviction*', i.e. substantial increase in rents following renovation works that would be counter-productive to addressing the problem of 'energy poverty'.
- ▶ Initiatives supporting the **employment and qualification of construction workers** to respond to the increase in demand in the construction sector and deployment of new digital technologies in buildings.
- ▶ **A set of recommendations** to Member States, based on best practices, on financial incentives and plans **for the renovation of the building envelope**, as a complement to the recently developed Strategy on heating and cooling.



WINDOW REPLACEMENT

AT THE CORE OF NATIONAL RESILIENCE AND RECOVERY PLANS

Window replacement ticks all the boxes of the European Green Deal. It is essential to materialize the Renovation Wave and to enable a sustainable recovery of the building sector.

Ensuring the highest-level of performance in renovation works

Doubling the current renovation rate without ensuring an increase of the energy performance of the building stock will fail in delivering the energy savings expected by 2030 and ultimately a climate-neutral Europe by 2050. To avoid the energy and CO₂ lock-in effects for decades, **renovation works need to be carried according to the highest performance standards** both at the level of building envelopes but also at the level of their main components, such as glazing. This is essential to maximize savings in case of gradual works and to mainstream high performance and high carbon-avoiding construction products. **The EU's carbon-neutrality objective should be used as reference in legislations and in building codes** regulating the energy performance of buildings at all levels of governance.

- ▶ **Minimum energy performance requirements⁴ for building elements need to be upgraded, made unconditional and adequately enforced.** The requirements shall go beyond the 'cost-optimality' criterion, which often leads to window requirements⁵ below actual market standards. It should be replaced by a criterion that ensures compatibility with the 2050 climate neutrality objective to avoid CO₂ lock in effect in the building sector.
- ▶ Measures to ensure the convergence of parameters used in the new 'climate neutrality' calculation (see above) and more transparency on input data are needed on both buildings and components. In the case of windows and glazing for instance, **the assessment should be based on their 'energy balance'⁶**. No limitative conditions allowing to deviate from these performance requirements should be allowed.
- ▶ **Mandatory minimum requirements for buildings** attached to trigger points in the lifetime of buildings, need to be linked to high performance standards to avoid that these renovations are carried with minimal energy-efficiency considerations.
- ▶ National long-term renovation strategies should aim at **phasing-out inefficient building components** such as single glazing and early uncoated double glazing. Incentives to building component replacement, such as windows, should be **conditional to a high-performance standard and proportional to the level of performance**. The latter is important to avoid market lock-in at the lowest level necessary for the incentive to be granted.
- ▶ **Building passports** providing tangible information and technically grounded recommendations for gradual improvements should be made available to all consumers. These passports should include links to up-to-date independent information on building components, such as glazing and windows, and on technical solutions available in the market.

⁴ European Union, 2018, *Directive of the European Parliament and of the Council amending Directive 2010/31/EU on the energy performance of buildings*, L 156/75, 30 May.

⁵ Glass for Europe overview of minimum performance requirements for window replacement in the residential sector: [Web-link](#)

⁶ Glass for Europe explanatory paper on the energy balance of glazing: [Web-link](#)

Amending the EED and EPBD to activate the renovation market in Europe

Energy Efficiency Directive

A mandatory target for energy efficiency in buildings aligned with the EU's climate ambition should rapidly be enshrined in the Energy Efficiency Directive (EED), together with interim objectives, to give the necessary regulatory and financial priority to building renovation.

Article 1 and 3 – The EED should set an ambitious Energy Efficiency target and prioritize actions in the sector with the highest energy saving potential, namely the building sector.

- ▶ A binding energy efficiency target of at least 40% should be introduced.
- ▶ A sector-specific objective for the building sector providing a clear indication of the contribution expected from buildings should be set.

Article 5 - In the short term, public authorities should be incentivised to massively renovate public buildings according to high-efficiency standards.

- ▶ The scope of art. 5 should be extended to regional and local government buildings serving the public's interest (schools, hospitals and social housing etc.)
- ▶ The possibility in art. 5 (6) not to renovate public buildings by applying alternative measures instead should be removed.
- ▶ Minimum Energy Performance Standards (MEPS) should cover public buildings to ensure the highest energy performance.

Energy Performance of Buildings Directive

The Energy Performance of Buildings Directive (EPBD) needs to be urgently revisited to trigger upgrades in national building codes.

Article 2A – Milestones included in the National long-term renovation strategies should be aligned to the sector-specific objective for building to be set in the EED.

New article – Mandatory minimum energy performance standards (MEPS) attached to trigger points in the lifetime of buildings, should be included in the EPBD. They need to be linked to high performance standards to avoid that renovations are carried with minimal energy-efficiency considerations.

Article 4 – To go beyond the “cost-optimality” criterion to ensure compatibility with the climate neutrality objective and thus avoid CO₂ lock in effect in the building sector.

Article 12 – Next to Energy Performance Certificates, building passports must be introduced.

Annex 1 – The EPBD should ensure a proper evaluation of all energy-related aspects impacting the performance of building elements.

- ▶ Stricter guidance should be given to Member States for the purpose of determining the performance levels according to the climate neutrality criterion (see amendment to Article 4 above).
- ▶ Member States should be asked to improve the methodology defining the minimum performance requirements of transparent components of the building envelope. These must be assessed by way of the energy balance.
- ▶ The calculation of the energy performance of a building should be based strictly on its energy needs. Therefore, the possibility given to Member States to consider both on-site and off-site renewables in the calculation of the primary energy factors for the purpose of calculating the energy performance of buildings should be removed.