

European Aluminium position on the review of the Energy Performance of Buildings Directive (EPBD)

Brussels, 27 March 2017

A proposal (COM(2016) 765 final) to amend the Energy Performance of Building Directive (Directive 2010/31/EU), was part of the 'Clean Energy for all Europeans' package presented by the European Commission in November 2016.

On top of being supportive of any measure susceptible to unlock the renovation of the EU building stock, European Aluminium identified a few issues¹ and would be happy if these could be solved by amending the proposal:

- Weakened definition of “Nearly Zero Energy Buildings” (NZEB);
- Inappropriate setting of minimum performance requirements for some building elements;
- Poor maintenance of active control systems and their controlled elements, in non-residential buildings;
- Incomplete declaration of thermal characteristics for some building elements;
- Need to stress the benefits of daylight, natural ventilation and solar management.

Weakened definition of “Nearly Zero Energy Buildings”

European Aluminium Members are confronted with the problem that several developers don't concentrate their efforts to minimise energy demand if they can supply energy through renewable sources. This results in poor performance of building envelopes during the heating season (lack of insulation, poor air-tightness, no optimisation of solar heat gains) and/or during the cooling season (no shading system, no ventilated cladding, no usage of natural ventilative cooling etc.).

The NZEB definition should ideally have been reinforced to underline that two distinct criteria must be met:

- minimized energy demand
- energy to be produced from renewable sources to a very significant extent.

Unfortunately, the Commission proposes amendments to EPBD's Annex I that would allow renewable energy produced on-site and off-site to be discounted in the calculation of the energy performance of buildings, thereby weakening the NZEB definition that refers to that Annex.

On top of going against the 'energy first' principle and diluting the subject matter of the EPBD, the Commission proposal would confuse consumers since the total energy consumption could no longer be visible on energy performance certificates. Produced from renewables or not, energy has a cost/value that should not be hidden for consumers!

To reflect the energy performance of a building, the energy produced from renewables should not be discounted, OR a numeric indicator of the energy demand for heating, cooling, domestic hot water, ventilation and lighting should be added as a complement to the numeric indicator of primary energy use.

¹ These issues were already explained in the European Aluminium answers to the stakeholder consultation on the evaluation of the EPBD in October 2015 (Case ID: 7eb677c3-cc20-4ec2-9d16-06f3bd4ae9c3)

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Inappropriate setting of minimum performance requirements for some building elements

The setting of minimum performance requirements for building elements forming part of the building envelope that are retrofitted or replaced are not always optimised to reach EPBD objectives.

European Aluminium observes that Member States requirements are focused on insulation while other aspects are equally and often even more important, like solar gains, cooling through natural ventilation, natural light etc...

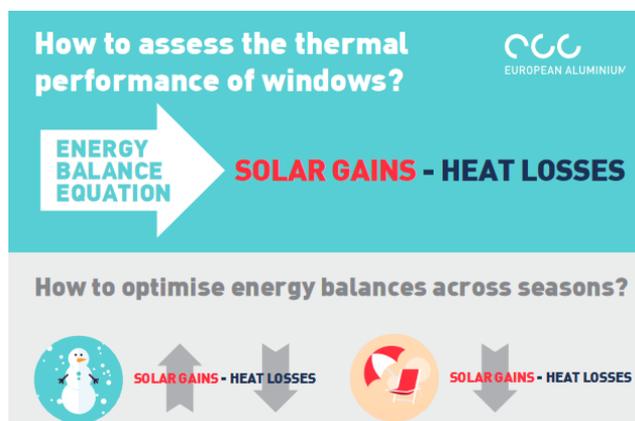
European Aluminium Members are facing this problem for windows for which minimum performance requirements set by most Member States are exclusively related to their thermal transmittance (U_w value), while other thermal characteristics are neglected, which is not scientifically correct and putting cost optimality at risk.

Watch this animation to understand the issue:



Minimum requirements should preferably be based on a combination of all relevant thermal characteristics of a given building element, known as 'the energy balance', which could easily be done with a few simple amendments to Articles 3, 4 and Annex I of the EPBD.

For more details, look at our infographics explaining how to apply the 'energy balance' to windows:



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Poor maintenance of active control systems and their controlled elements, particularly installed in non-residential buildings

European Aluminium came across several buildings for which the inspection & maintenance of active control systems and their controlled elements (e.g. shading devices, automated windows or other ventilation systems) was not done frequently enough. The poorly maintained systems and elements had a severe impact on the energy efficiency of the buildings which were no longer operating optimally, even sometimes requiring to consume more energy compared to less sophisticated buildings.

This could be solved by asking energy performance certificate to provide information in regards to the frequency for programmed maintenance work of building automations, electronic monitoring and other building elements, in Article 11 of the EPBD.

Incomplete declaration of energy-related performance characteristics for some building elements

We are facing incomplete declaration of energy-related performance characteristics for some building elements, like windows.

To solve this, the declaration of all energy-related performance characteristics could when relevant become mandatory across the Union by referring to the Article 3§3 of the Construction Products Regulation (EU 305/2011) in Article 4 of the EPBD.

Need to stress the benefits of daylight, natural ventilation and solar management

People spend up to 90% of their time in buildings but many existing European buildings suffer from poor daylight and indoor climate with adverse effect on health, well-being and productivity. Furthermore, as summer comfort is becoming more and more important in Europe, overheating prevention technologies and natural ventilation should also be considered. It reduces energy consumption for buildings equipped with air conditioning, and improves comfort for buildings not equipped with air conditioning.

A few simple amendments across the EPBD would help stressing these benefits.

Further info: <http://www.european-aluminium.eu/advocacy/energy-performance-of-buildings/>

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