

13.02.2009

Position of the Building Group of the European Aluminium Association on the proposal for a Directive on the energy performance of buildings 2008/0223 (COD), hereafter named EPBD.

The Building Group of the European Aluminium Association speaks on behalf of the leading suppliers of aluminium framing systems for windows, doors and curtain walls¹ and flat aluminium building products².

The European Aluminium Association is Associated Member of CEPMC, the Council of European Producers of Materials for Construction.

As a huge potential to reduce the energy consumption of European buildings at reasonable costs lies in the renovation of existing buildings, we support the deletion of the 1000 m² threshold for existing buildings that undergo major renovation. We call for Europe's governments to invest in major renovation of their own building stock, to lead by example and stimulate the building and construction sector, in these challenging financial times.

For new and existing buildings, we would like to raise your attention to the **risks of setting performance targets at the level of components** because it may induce sub-optimization, as further explained in section 1.

We support the concept of low energy consuming buildings, with optimization undertaken at building level. However, we are not convinced by zero primary energy consuming buildings, because the focus on the use-stage does not secure the energy and cost efficiency across the whole life-cycle of construction materials.

We welcome the new definition of "cost-optimal level" (Article 2.10 and Article 5) as this allows to seek for the optimally balanced solution between energy-saving and investment seen in the long-term.

We welcome the insertions of the thermal characteristic "passive heating" in the Annex 1 clause 3.(a) (iii) and "local solar exposure conditions" in Annex 1 clause 4 (a), as this will give a more reliable picture of the contribution to energy efficiency for many products.

The definition of "technical building system" needs to become more precise.

We welcome further dialogue with you, to assist in realising energy-efficient building and would like to propose amendments to:

- Article 2 – Definition (2)
- Article 7 – Existing buildings

¹ Kawneer (Alcoa), Alumil, Hydro Building Systems, Metra, Reynaers Aluminium, Sapa Building System, Schüco

² Alcan Composites, Alcoa Building & Construction Systems, Hydro Rolled Products, Novelis



1. MULTIPLYING PERFORMANCE TARGETS AT COMPONENT LEVEL CHALLENGES THE OVERALL TARGET OF THE EPBD

A minimum performance requirement at component level challenges the overall target of EPBD. The energy performance of buildings is the total performance of the combinations of its components. The sophisticated, but meanwhile widely spread and accepted holistic analysis, permits optimization of the overall performance by modelling differently performing components such as roof – façade insulation – glazing. The holistic approach is the result of an evolutionary process that started on component requirements decades ago. Therefore, going back to the component approach, as we applied it the past decades, results in sub-optimization³ and brings nothing to neither society nor climate change.

In addition, such optimization is not only carried out in energy saving terms, but also in cost terms, as it allows to find the optimal solution for a fair price.

Another consequence would be that products will be tuned towards the required performance level, which might not include all relevant aspects thinking in sustainability or user-comfort terms.

2. AMENDMENTS PROPOSAL

Article 2 (2) – Definition of “technical building system”

We think that the present definition of technical building system should be clarified.

In the present proposal, *“technical building system” means technical equipment for heating, cooling, ventilation, hot water, lighting and electricity production or for a combination of those;*

The definition proposed by the Commission is not fully clear. For example, an open window or a glazed façade with openings provide zero-energy consuming ventilation and cooling for which setting minimum energy performance requirements according to Article 8 makes no sense.

These elements are typical examples of “building envelope” elements that are falling under definition (5) already

Therefore, we propose to limit the scope of this definition to energy-using technical equipment. **See our amendment proposal nr 1.**

Article 7 – Existing buildings (corresponding to Article 6 in current EBPD)

The last sentence of the article states that *“The requirements may be set either for the renovated building as a whole or for the renovated systems or components when these are*

³ Sub-optimization can occur when the objectives of sub-systems (e.g. windows) are pursued to the detriment of the overall system goals (e.g. whole building).



part of a renovation to be carried out within a limited time period, with the abovementioned objective of improving the overall energy performance of the building =>or parts thereof<=.

This sentence in the present EPBD is already causing problems.

We do not support the addition of the words “or parts thereof” at the end of this sentence that would make it worse. We will not support any amendment enforcing Members States to set requirements for components.

The target shall be the optimisation of the building's overall energy consumption, what only can be achieved by a holistic approach. I.e. there is no difference between new and existing buildings, when undergoing major renovation.

Requirements on components make only sense, if part replacement is taking place, e.g. windows replacement. Should minimum energy performance requirements be set in that case, these should be based on a sufficient number of performance properties representative of aspects listed in Annex 1, to secure that both energy losses and ENERGY GAINS are taken into account, as well as occupant's comfort and health, e.g. daylight gains, indoor air exchange by natural ventilation. In summary, such minimum requirement cannot be based on one single aspect like a U-value, like it is the case in most Members States today, because it impacts other energy efficiency aspects and could create a negative overall result for the occupant if not balanced and analysed carefully.

See our amendment proposal nr 2.

Amendment proposals

Amendment 1

Proposal for a directive Article 2 – definition (2)

Text proposed by the Commission

(2) "technical building system" means technical equipment for heating, cooling, ventilation, hot water, lighting and electricity production or for a combination of those;

Amendment

(2) "technical building system" means **energy-using** technical equipment for heating, cooling, ventilation, hot water, lighting and electricity production or for a combination of those;

Justification

The definition proposed by the Commission is not fully clear. For example, an open window or a glazed façade with openings provide zero-energy consuming ventilation and cooling for which setting minimum energy performance requirements according to Article 8 makes no sense.

These elements are typical examples of "building envelope" elements that are falling under definition (5).

Amendment 2

Proposal for a directive Article 7

Text proposed by the Commission

Member States shall take the necessary measures to ensure that when buildings undergo major renovation, their energy performance is upgraded in order to meet minimum energy performance requirements in so far as this is technically, functionally and economically feasible. Member States shall determine these

Amendment

Member States shall take the necessary measures to ensure that when buildings undergo major renovation, their energy performance is upgraded in order to meet minimum energy performance requirements in so far as this is technically, functionally and economically feasible. Member States shall determine these



minimum energy performance requirements in accordance with Article 4. The requirements may be set either for the renovated building as a whole or for the renovated systems or components when these are part of a renovation to be carried out within a limited time period, with the objective of improving the overall energy performance of the building ***or parts thereof.***

minimum energy performance requirements in accordance with Article 4. The requirements may be set either for the renovated building as a whole or for the renovated systems or components when these are part of a renovation to be carried out within a limited time period, with the objective of improving the overall energy performance of the building.

Justification

The application of this sentence in the present EPBD is already causing trouble. The target shall be the optimisation of the building's overall energy consumption, what only can be achieved by a holistic approach. I.e. there is no difference between new and existing buildings, when undergoing major renovation.