

## Screening criteria for windows and doors in the draft delegated regulation on a classification system for sustainable economic activities ('taxonomy')

EuroWindowor appreciates the opportunity to provide feedback to the consultation on the Sustainable finance – EU classification system for green investments. Representing the European window, door and facade manufacturers EuroWindowor is a strong supporter of the EU-Commissions activities in the green finance sector. We favour the idea of strengthening green investments by defining criteria for them.

The products our industries deliver contribute to a strong improvement of energy efficiency and therefore climate protection in the building sector. Nevertheless, there is one aspect in the draft delegated regulation, we would like to draw your attention to.

In clause 3.4 of the Annex I and Annex II to the draft Commission's delegated regulation, screening criteria are used to define the conditions under which windows and doors qualify as contributing substantially to climate change mitigation.

The proposed criteria are based upon the thermal transmittance called  $U_w$  (for windows) or  $U_D$  (for doors), which represents the tendency for a window or a door to convey heat (the lower, the more insulating). Thresholds are set in clause 3.4 to define energy efficiency equipment for buildings:

- (a) windows with U-value lower or equal to  $0.7 \text{ W/m}^2\text{K}$ ;
- (b) doors with U-value lower or equal to  $1.2 \text{ W/m}^2\text{K}$ ;

EuroWindowor would like to point out the high risks associated to these criteria in the following.

### The U-value does not represent sufficiently the energy efficiency of glazed products

While U-values could make sense as energy criteria in Northern regions with heavy winters (e.g. in northern Scandinavia), most European regions are relying on free solar gains to compensate the heat losses of windows. The warmer the climate, the higher the role of solar gains becomes for the energy efficiency.

Therefore, setting strong requirements based exclusively on U-values would support the use of material intensive products (e.g. triple layer glazing or beyond) in regions where a better cost-efficiency is achievable.

Besides, the amount of glass layers and low-e coatings required to achieve very low U-values would reduce the free solar gains that can be recovered by the same window, de facto reducing the expected energy performance of the installed product.

The EuroWindowor study on "Heating energy savings in residential buildings due to window replacement"<sup>1</sup> demonstrates that two windows with respective U-values of 1.1 and 1.3  $\text{W}/(\text{m}^2\text{K})$  present the exact same energy performance due to reduced solar gains admitted by the 1.1  $\text{W}/(\text{m}^2\text{K})$  window (triple-layer glazing).

### Products with very low U-values are not necessarily environmentally friendly

The level defined as screening criteria for windows was set (U-value lower or equal to  $0.7 \text{ W/m}^2\text{K}$ ) goes beyond the vast majority of currently available technologies. Only a few specific products might claim such performance levels, which necessarily comes at the expense of material intensity (e.g. 4 to 5 layers of glass), weight (significantly thicker frames) and environmental impact (use of natural resources and energy, sometimes more difficult to recycle).

As described in the Ecodesign Study – LOT 32 – Task 4<sup>2</sup>, no reliable window technology – even the BAT (Best Available Technology) – can achieve the performance defined by the screening

<sup>1</sup> [Study on "Heating energy savings in residential buildings due to window replacement" by Ingenieurbüro Prof. Dr. Hauser GmbH](#), 2018; Complementary Information: [Executive Summary](#)

<sup>2</sup> LOT 32 / Ecodesign of Window Products TASK 4 – Technology, IFT Rosenheim, VHK, VITO, June 3<sup>rd</sup>, 2015

criteria which, for the most ambitious levels, keeps U-values at 0.8 or higher (values at 0.6 described in the Task 4 report refer to special double windows, not to products available on the market for the required applications).

### **The screening criteria for windows and doors do exclude many regions from Taxonomy**

Furthermore the screening criteria for glazed products do not take into account the different climatic conditions in Europe. In the Ecodesign Study – LOT 32 – Task 7<sup>3</sup> there are calculation examples to evaluate how U-values actually influences energy efficiency. When considering the efficiency for winter and summer conditions in Table 78 "Combined performance energy classes, single classification", class A is achieved in a range of  $U_w$  values with comparable energy efficiency. For example, class A is met for products without shading device in a nordic climate by  $U_w = 0.80$ , in a medium climate by  $U_w = 1.0$  and in a southern climate by  $U_w = 1.7$  W/(m<sup>2</sup>K). By requiring very low U values for the screening criteria, the most cost-efficient products are de facto out of reach in most regions according to Taxonomy, where U values are of minor importance.

### **Doors play a negligible role in the efficiency of the building**

For doors with  $U_D$ -values  $\leq 1.2$  W/(m<sup>2</sup>K) problems can arise with the functionality due to possible deformations from the bimetal effect and the doors become thicker and heavier. As doors generally make up a small area of the building envelope, they play a negligible role in the energy efficiency of the building.

We like to point out, that 90% of the doors in buildings are used internally and therefore are not related at all to the energy efficiency of the building.

### **EuroWindoor suggestion to modify the technical screening criteria for windows and doors**

We understand from the context that it is not possible to have indicative screening criteria for transparent products allowing MS to fix the required level themselves by taking climatic conditions into account, even if it would be the better approach.

Taking the mentioned aspects into consideration and to keep the criteria simple while the process is almost complete, **EuroWindoor suggest to hold onto U-values, but to change the performance level set in the “EU Taxonomy” report by adjusting the criterion under which windows qualify as contributing substantially to climate change mitigation by increasing the maximum  $U_w$ -value to 1.0 W/(m<sup>2</sup>K)**, therefore aligning the definition with best performing products available on the market.

**We suggest to delete doors from the list as it is not useful at all.**

EuroWindoor would highly appreciate the Commission to consider our contribution and remain available to further discuss these screening criteria to secure the efficient implementation of climate mitigation policies.

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<sup>3</sup> LOT 32 / Ecodesign of Window Products TASK 7 – Policy Options & Scenarios, IFT Rosenheim, VHK, VITO, June 22<sup>nd</sup>, 2015



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**About EuroWindoor AISBL** – EuroWindoor AISBL was founded as an international non-profit Association, in order to represent the interests of the European window, door and facade (curtain walling) sector. Our 19 national associations speak for European window, door and facade manufacturers that are in direct contact with consumers, and thereby having large insights on consumers' demands and expectations. We are at the forefront interacting with dealers, installers and consumers buying windows and doors, and the companies behind the associations cover selling all over Europe.

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