

REHVA Brussels Summit Report: Policy Conference on Zero Emission Buildings & REPowerEU



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On 15 November REHVA had the pleasure to host its annual Policy Conference during the Brussels Summit 2022 with a focus on two interlinked topics that preoccupied EU policy discussions for the building industry in the past year: **Healthy Zero-Emission Buildings** and **REPowerEU: Phase-out of fossil fuels in heating and cooling**. In this article you can read a summary of the discussions in both sessions with speakers from the European Commission, Parliament, industry stakeholders and REHVA experts. You can find the recordings and slide decks of the presentations on the REHVA website: <https://www.rehva.eu/events/details/rehva-brussels-summit-2022>

Morning Session on Healthy Zero-Emission Buildings

The morning session was opened and moderated by REHVA President **Catalin Lungu** who stressed that REHVA's role in the EU's policy area, as engineers & practitioners, is to provide our expertise on the technical and feasible solutions for the reduction in energy consumption and CO₂-emissions in buildings which is why the REHVA Policy Conference brought together a mix of experts.

Cristian Buşoi, MEP and Chair of the Industry, Research & Energy Committee (ITRE), highlighted in his keynote speech the priority areas for the ongoing negotiations within ITRE on the EPBD and links with other dossiers such as the revisions of the Renewable Energy (RED) and Energy Efficiency

(EED) Directives. In particular, the energy efficiency potential of technical buildings should be optimally supported through the EPBD, complemented by the other Directives.

Heating and cooling play a central role in the energy transition and especially by increasing the share of renewables, which is related to the negotiations on the revision of RED II which are being finalised this month (*November 2022*) in the trilogue meetings between the Council and Parliament.

As a last point Mr. Buşoi highlighted the importance of district heating which ITRE is trying to strengthen



REHVA President Catalin Lungu opening the REHVA Brussels Summit: Policy Conference.

further in the Fit for 55 negotiations, as this allows Member States to best apply cost-effective solutions for the decarbonisation of the building stock with the support of their local & regional authorities who can develop targeted strategies. District heating greatly improves the flexibility for Member States to implement measures for further boosting renovations.

The keynote was followed by a presentation from **Paula Rey Garcia**, Deputy-Head of Unit Buildings & Construction at DG ENER in the European Commission, who gave an overview of the Commission’s proposal and the ongoing negotiations. She stated the EPBD revision has to be seen in the framework of the Renovation Wave strategy and the Fit for 55-package, which aim to directly decrease GHG emissions by 2030 and set a long-term vision for a climate neutral building stock by 2050.

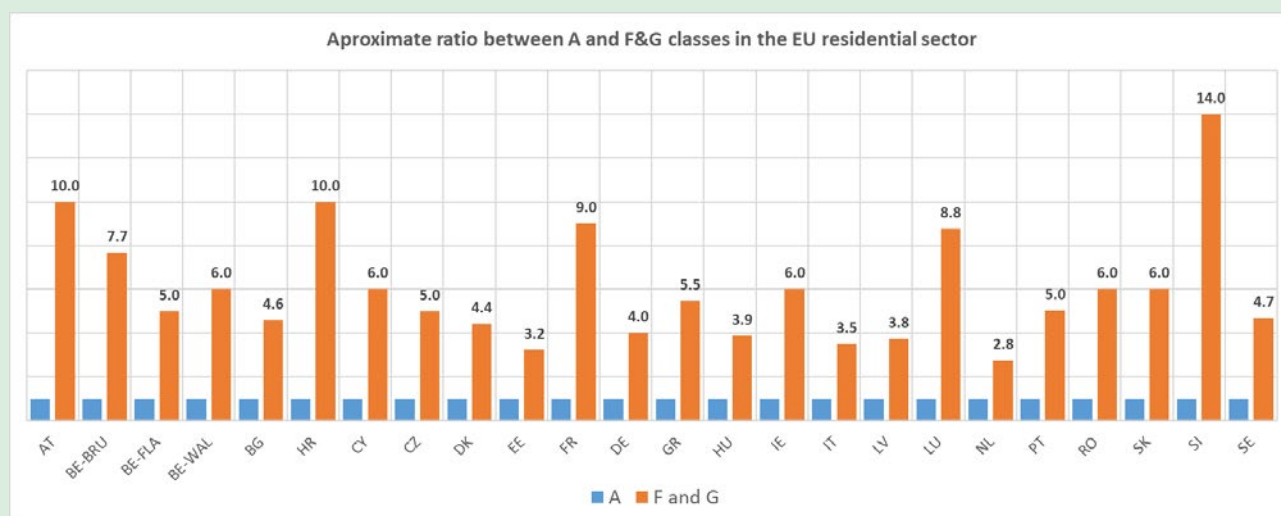
On **figure** below, you can see how Ms. Garcia showed that buildings with an EPC class of F or G consume 3 to 14 times as much energy as buildings with an EPC class A, depending on the Member State. This demonstrates that a lot of progress can be made in reducing energy consumption by tackling the worst performing buildings and explains why this is a priority area for the EPBD. The EPBD does this through the introduction of Minimum Energy Performance Standards (MEPS) that put the obligation on Member States to progressively improve their worst performing buildings and ensure that by 2033 all F & G class building have a better energy performance.[1]

The Council has adopted its general approach for the EPBD[2] negotiations on 25 October, where some parts of the Commission’s proposal were preserved

but Ms. Garcia stated that other parts were weakened to some extent (in particular the ZEB requirements). Currently there is a small delay within the Parliament to agree on their final position, which we now expect to be finalised in Q1 2023, while the trilogue negotiations between the institutions on the EPBD are expected to be finished in Q2 2023. There has been a push from some members in the Parliament to delay it further, but Commission has strong doubts about this given the central role of the EPBD in the ongoing energy crisis.

Jarek Kurnitski, Professor at TalTech University and Chair of the REHVA Technology & Research Committee, gave a presentation about the technical implementation of IEQ and primary energy aspects in ZEB within the EPBD recast as how it’s currently worded in the Council’s general approach. Articles 7 & 8 in the EPBD mentioned that Member States shall address healthy indoor climate requirements for new buildings & renovations, the question we can raise then is how serious the Member States will take these requirements as there will be different approaches and ambitions. The most significant change for IAQ requirements can be found in Article 11 which states that non-residential ZEBs should be equipped measuring & control devices for the regulation of IAQ.[3]

There are problems with the technical implementation of the calculation of energy performance of buildings however, as they’re currently worded in the EPBD recast. There is a big difference when using *Total Primary Energy (PE)* for the calculation or *Non-renewable*. This is demonstrated when we compare the energy performance calculation between district heating and a condensed gas boiler. When calculating



Energy consumption comparison between EPC Class A buildings and Class F & G buildings per Member State. (From the presentation by Paula Rey Garcia)

it with *total* PE, and excluding ambient heat and on-site PV, the gas boiler comes out as more efficient than district heating. When using *non-renewable* PE as the basis for the calculation, district heating is a lot more efficient.[4]

Benjamin Haas, Regulatory Affairs Director at Engie, talked about the implementation of EU measures for buildings in the French regulation, both in terms of the calculation of Primary Energy Consumption and limiting carbon emissions in LCA. In 2022 the RE2020 entered into force in France, which lays down new sustainable regulations for buildings. The RE2020 goes beyond the current EPBD as it includes LCA analysis for CO₂-emissions which requires a more holistic mindset. For example, from an LCA perspective, it's not enough to just ban fossil fuel boilers but also ensure that any indirect fossil fuel use through the electricity grid and district heating are phased out.

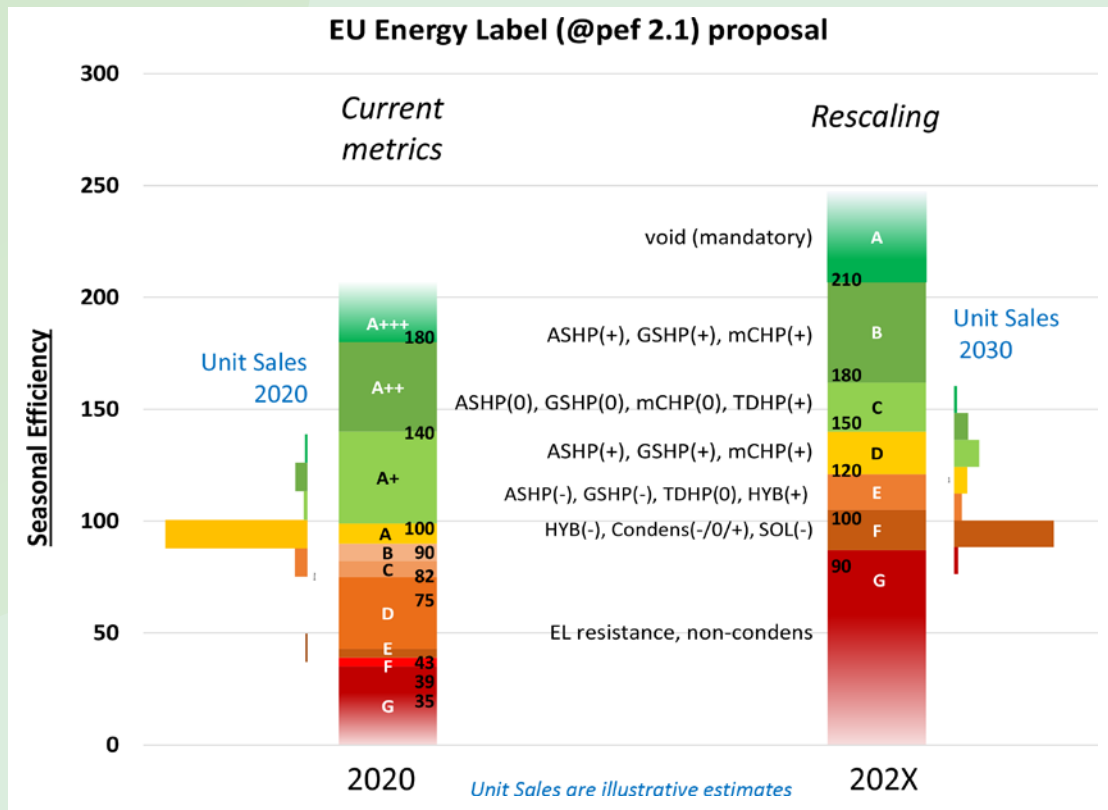
The final presentation of the morning session was given by **Ursula Hartenberger**, Secretary General of the Climate Positive Europe Alliance, on the role of green building certification. Ms. Hartenberger presented a framework reaching carbon neutral buildings & sites which exists out of two core elements that ensures more clarity and transparency for market

actors. The first being a definition for carbon neutrality, while the second element explains what it means to have an effective approach for the reduction of GHG emissions.

Afternoon session on REPowerEU

In the afternoon the Policy Conference focused more on the REPowerEU ambitions and started with a statement by **Andrew Murphy**, Head of Buildings & Industry at ECOS, on demand reduction within the building sector. There needs to be a fundamental change in how we heat our buildings on all levels. For this to happen the European and national policies need to be closely aligned. On European level we have two big tools for reducing gas demand: the Ecodesign requirements and the EPBD. Ecodesign has proved very effective to reduce our dependency on fossil fuels in a large range of products, which is why the Commission has proposed to broaden it to a larger part of our economy and looks to phase out stand-alone fossil fuel boilers by 2029 through Ecodesign.[5]

Philippe Riviere, Policy Officer at DG ENER in the Buildings & Products unit, went deeper into the role of Ecodesign & energy labelling for HVAC products. On one hand we have Ecodesign requirements that act



Rescaling of energy labelling for hydronic space heaters. (From the presentation by Philippe Riviere)

as a *push element* in the market to ensure minimum requirements on the lowest efficiency products on the market. On the other side, energy labelling acts as a *pull element* that aims to show which are the worst and best products on the market to drive up the sales of the best performing.

Currently energy labelling for both local/room heating and hydronic space heaters are being revised. For local/room heating there were 5 different scales in place depending on the product to improve efficiency within the products themselves. Now the Commission has proposed a single scale for all local/room heating products together to be able to better compare the efficiency between different energy products so that the most efficient product gets stronger incentives. This would, for example, allow to better compare the efficiency of heat pumps to gas boilers. The second revision focuses on hydronic space heaters for a rescaling of energy labelling for different energy products. With the current scaling condensing gas boilers have an energy label A while with the rescaling this will drop to F, while both ASHP & GSHP will have label B.

The last presentation of the day was by **Tomasz Cholewa**, chair of the REHVA Task Force on Building Decarbonisation, and presented on how to take on a holistic approach for deep energy renovations. The focus of renovations often lays on the building envelope, while the modernisation of HVAC systems can often bring bigger gains and should be a first step. This modernisation process for all HVAC systems is explained in REHVA Guidebook 32.[6] As a second step to complement the most efficient HVAC systems, the buildings should increase the use of RES.

The REHVA Policy Conference was closed by a panel discussion on the feasibility and readiness to ban fossil fuels in heating and cooling. The panel was formed by Philippe Riviere, Tomasz Cholewa, **Celine Carré** (President EuroACE), **Ilari Aho** (VP Sustainability & Regulatory Affairs Uponor), **Henk Kranenberg** (Senior Manager Daikin Europe), **Christian Schauer** (Director Water Competence Centre, Viega). We welcome you to watch the recording of the discussion: <https://www.rehva.eu/events/details/rehva-brussels-summit-2022> ■

References

- 1 See Article 9 in the Commission Proposal: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021PC0802>.
- 2 Read more about the Council General Approach: <https://www.rehva.eu/news/article/council-agrees-on-general-approach-for-the-epbd>.
- 3 In the Commission's original proposal this requirement was put on all ZEBs, the Council proposes to limit this to only non-residential. See Article 11 in Council General Approach: <https://data.consilium.europa.eu/doc/document/ST-13280-2022-INIT/en/pdf>.
- 4 Read more about the technical comments on primary energy factor within the EPBD in the article by Dick van Dijk and Jarek Kurnitski for the REHVA Journal 04/2022: <https://www.rehva.eu/rehva-journal/chapter/the-epbd-recast-how-to-come-to-a-transparent-and-fair-zeb-definition>.
- 5 Find more information about the proposal for a Ecodesign for Sustainable Products Regulation, released on 30 March 2022: https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products_en.
- 6 Find more information about this Guidebook: <https://www.rehva.eu/eshop/detail/energy-efficient-renovation-of-existing-buildings-for-hvac-professionals>.