



Your service center for information and technical support on the new set of EPB standards

HVAC designer views on EPBD recast related to new and existing buildings

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The decarbonation of buildings: Turning ambition into action

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About EPB Center

<https://epb.center/> - Contact: info@epb.center



Mission and services

Service Center for information, training on EPB standards:

- provide interested parties (MS, industrials) technical support
- further improve the set of EPB standards (CEN, ISO).



➤ **EPB Center Board Director**

- **REHVA** Vice president
- Convenor in **CEN and ISO standardization committees** related to the energy efficiency of HVAC systems
- Former Head of Division in a French public research center





HVAC designer views on the EPBD recast final text



The **objectives of EPBD** are **clear** and **go in the right direction**.



But the **way how to reach these objectives** could be **improved**, (e.g. it sometimes **limits optimisation** of building performance).



Next steps (guidelines, delegated acts, national implementation) should be done in **close cooperation with building professionals**, because **ambition level, requested professional skills** are **high**.

Harmonized implementation is key

because only harmonization will allow **efficient development**:

- common **software tools** (e.g. for assessment calculation),
- common **training** (upskilling, capacity building),
- common **certification / qualification** of skills and professionals



Why EPBD goes in the right direction?

The EPBD keeps, and enlarge, the **holistic** approach: 

- From **building component** to **energy carrier: primary energy**
- From **operational** assessment to **Live cycle analysis**
- Considering **all EU targets** by **adequate indicators: nZEB, ZEB**
Energy efficiency first, use of renewables, decarbonation,
healthy buildings, energy poverty and affordable buildings



Why EPBD recast **limits** the **optimisation** of building performance?

Example ZEB definition:

By requesting “*not any on-site carbon emissions from fossil fuels*”,
⇒ EPBD recast **reduce** the **possibilities** for building EP **optimisation**.

Example: **No compensation** of fossil fuel emission by exporting renewables

The rational of this request is not understood:

Example: two technical systems:

- **On-site** technical system (cogeneration unit, boiler, hybrid heatpump) using **99% renewables** (hydrogen, biogas), **1% fossil fuel = not ZEB**
- **Nearby, distant** technical system (cogeneration unit, boiler, hybrid HP) using **1% renewables** (hydrogen, biogas), **99 % fossil fuel = possible ZEB**



Consequence: **high cost** for the **building owner**
(especially when “**nearby and distant**” solutions are **not available**).

Next steps: EPBD implementation

Ambition level, professional skills = harmonization



- Calculation of the **life-cycle global warming potential**,
- Design of **ZEB buildings**,
- Defining and reaching optimal **indoor environmental quality**,
- Addressing **carbon removals** associated to **carbon storage**.



New challenges must be **put into practise** by **skilled professionals**

Only **harmonized implementation** will allow **efficient development**:

- common **software tools** (e.g. for assessment calculation),
- common **training** (upskilling, capacity building),
- common **certification / qualification** of skills

Cooperation with professional associations in drafting technical support
(guidelines, delegated acts, standards, etc) **is key for**
turning ambition into action