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Feedback on:

[Energy efficiency – Revision of the Energy Performance of Buildings Directive](#)

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The review of the Energy Performance of Buildings Directive (EPBD) provides us with an opportunity to raise the bar in terms of reducing the (climate) impact of buildings across Europe by making them more energy efficient.

In this respect, BIBM, the Federation of the European Precast Concrete Industry, calls on the European Commission to consider the following points when elaborating its proposals for the revision of the EPBD:

- Improve the recognition of the benefits of thermal capacity by taking the **“effective thermal mass”** into account in the Directive

Concrete can reduce the energy which our buildings consume thanks to its high thermal mass. It does this through its unique ability to absorb heat during the day and release it at night, providing a stable indoor temperature. This in turn reduces the need for heating and cooling, thus reducing emissions.

- When deep renovation is mentioned, also make reference to the **possibility of rebuilding**

When deep renovation is envisaged, a life cycle analysis should be carried out to assess the best option with a medium to long term perspective: renovation or rebuilding. Provided that this analysis is performed, both scenarios should receive the same financial and fiscal benefits.

- The EPBD should be the **central tool** to regulate the energy performance of buildings

The Energy Efficiency First principle should be translated into prioritizing reduction of energy need due to the high level of ancillary benefits associated with highly energy efficient buildings.

- Take **advantage of the building fabric** to support increased uptake of renewable energy

Thermal energy storage in the building fabric allows for shifting the time of highest demand for electricity for heating and cooling in buildings, thereby drawing power at times when a higher share of renewable sources are used in the electricity mix. Fabric energy storage also allows for greater uptake of own renewable sources such as heat pumps, avoiding the need for conversion to electricity altogether, as well as own solar or wind power.



- Prioritise not only reducing primary energy but also **reducing absolute energy use**

A switch from primary energy to renewable energy should not lead to less energy efficiency buildings. The goal should always be to reduce energy demand first, followed by use of sustainable energy, and finally efficient use of fossil fuels if strictly necessary.

- Ensure that energy efficiency does not come at the expense of **indoor comfort**

Energy efficiency measures should keep occupant comfort in mind, and avoid draughts and large temperature differentials within rooms. One way to achieve this is to prioritise the use of operative temperature rather than air temperature in building design, in order to achieve thermal comfort while saving energy.

- Energy performance calculation methodologies must be sophisticated enough to take **dynamic effects**, like thermal mass, into account

Energy performance calculation methodologies based on a steady-state analysis will not capture dynamic (time related) effects, such as the natural storage and release of thermal energy which occurs with heavyweight building elements (thermal mass). Dynamic calculation methods should be preferred in order to allow designers to avail of such properties in their energy performance strategy, which come at no additional cost, and to avoid a gap between designed performance and real performance.

BIBM promotes the uptake of efficient construction solutions for buildings and is willing to exchange with the Commission both expertise and outputs from relevant activities and EU-funded projects regarding sustainable and energy-efficient construction.