



THE IMPACT OF EPBD4 LEGISLATION: PERSPECTIVES FROM INDUSTRY LEADERS

This position paper represents the views of industry leaders on the Energy Performance of Buildings Directive (EPBD4) legislation. It aims to provide insights and recommendations to the government sector responsible for implementing the Directive. By highlighting the industry perspective, this document aims to contribute to the effective implementation of EPBD4 and promote sustainable building practices.



ŠANCE
PRO BUDOVY



Proposal for a standard for new buildings (ZEB)



1. Tightening on the building or land "ON-SITE" according to the current way of assessment without primary energy compensation:

- a) Target a 10% tightening over the current requirement for a nearly-zero energy building (nZEB II) without cost-optimum screening, it is not possible to wait for the cost-optimum methodology to be updated. The 10% tightening corresponds to the technical criteria of the EU Taxonomy of the main mitigation objective.
- b) Examine a tightening of more than 10% compared to the current requirement for a near-zero energy building (nZEB II) for family houses only.
- c) Ensure tightening on the final indicator of primary non-renewable energy or on an increase of the current deduction from the reference value of primary non-renewable energy. Current main scale of assessment is primary non-renewable energy not e.g. total primary energy or CO₂eq.
- d) The tightening on the building envelope is not necessary in principle. However, we suggest rewriting the U-values for construction types directly in the directive to avoid reference to the (Czech National Standards). Use a reduction factor to tighten the U-values for partial renovations or grants.

2. Offset PENB (energy passport) rated primary energy to zero outside the actual building and site "OFF-SITE":

- a) Annual compensation of primary energy in the minimum absolute amount of primary energy according to the PENB result to be documented in the DEN database (building book) annually in arrears.
 - Solving the gradual improvement of the energy network - primary energy factors over time (for energy sharing between buildings, it is necessary to deduct own consumption before sharing).
- b) Compensation in the form of:
 - Existing community renewable energy (PPA contract) (see also OTE a.s.: EECS Electricity - Czech Republic Domain Protocol).
 - Promotion of new renewable energy sources (to explore the possibility of using something similar to Energy Certificates from the USA) (e.g. REC had zero transmission charges in 2018, offered price from Carbon solutions group 1.59 USD/MWh).
- c) Consider possible exemptions for compensation (rather suggest not to recommend, as a positive market response to the situation can be expected - flexibility, green tariffs, etc.). The principle to be set so that sharing is only possible to a small extent for family houses, larger for residential buildings, largest for monuments and exceptions where ONSITE RES cannot be provided.

3. LCA building life cycle analysis:

General: accept EPD according to European standards, do not create any "Czech specifics" in EPD.

- a) Introduce a national material database for comparability of calculations - results.
- b) Introduce a national processing methodology to ensure:
 - the range of building elements and technical equipment corresponds to the definitions given in the common EU Level(s) framework for indicator 1.2.

- the introduction of 2 levels of calculation complexity:
 - Simplified method to meet the requirement always leading to categorization C = reference (in workload according to the size of the building, single family house up to max. 4 hours).
 - A detailed calculation method to better categorise the building (using detailed calculation sheets, environmental product declarations EPD of specific building products, etc.).

c) Ensuring continuity with budgeting software.

d) Addressing the requirement of a limit to 2030 beyond the LCA classification in PENB for standard building materials with the highest impact such as concrete, reinforcement, steel, masonry, glass, etc.

- Delegation of cradle to gate requirements (A1-A3) to manufacturers to demonstrate via Environmental Product Declaration (EPD), for implementation in mandatory regulations other than building energy performance.
- Setting a limit on the whole building LCA would not lead to real pressure on manufacturers to reduce embodied CO₂eq. but rather to setting these limits on a "sure thing" = no real impact.

4. Sustainable mobility:

- Charging capacity and design capacity must be clearly defined, otherwise the requirement is meaningless as it is already defined today.
- Implementation in a decree other than on energy performance of buildings (will not be assessed by PENB).
- To determine how it will be checked.

5. Measurement and control systems:

- The scope and capabilities of measurement and control systems must be more clearly defined.
- Implementation in a decree other than the Energy Performance of Buildings (will not be assessed by PENB).
- To determine how it will be controlled.

6. Solar energy:

- Scope and possible exemptions must be clearly defined.
- To determine what tool will be used to assess (whether PENB).
- To determine how it will be checked.
- The assessment of "readiness for PV" will take into account the fire safety design of the roof and measures to increase the fire protection with respect to the type of building.

Proposal for a renovation standard for existing buildings (ZEBra)



Deep Renovation and partial renovation:

- a) The current method of assessing requirements with the aim of progressively achieving an identical standard with new Zero Emission Building (ZEB).
- b) Tightening of the values of the current requirements for building renovation in the form of:
 - More stringent requirements for U of individual structures with respect to the financial requirements for individual types of construction according to (see ZEB).
 - Greater flexibility between the building and the technology part: Uem and primary non-renewable energy.
- c) The exceptions applicable to renovations, whether technical or e.g. conservation, will be maintained as today, but always with mandatory primary energy compensation identical to that for new buildings.
 - Annual compensation of primary energy in the minimum absolute amount of primary energy according to the applied exception in the PENB (to be documented in the DEN (building book) database always annually in arrears.
- d) It is necessary to define exactly what the voluntary renovation passport will look like and how it will be used.
- e) On the topics Sustainable Mobility + Metering and Control Systems + Solar Energy, the position is the same as for new buildings.



Proposal for a building renovation plan (including commitments to 2030-2033-2035)



1. Building stock survey:

Commission a survey of the stock of existing buildings to answer key questions for the building refurbishment plan:

- Current status of mandatory measurable indicators by 2020.
- Separately residential buildings, non-residential buildings further categorized.
- Setting the methodology for measuring the measurable indicators for the next years.
- Relationship to categorisation in PENB.

2. Method of developing the building renovation plan:

- We require facilitation of a broad discussion on the mix of supporting and mandatory measures in the renovation plan to meet the binding targets, so that the building renovation plan is at least a short-medium term plan for decarbonisation of buildings, which will be at least majority and cross-sectionally supported and implemented in the following years.

3. Suggestions and incentives for supporting (incentive) measures to meet the 2030-2033-2035 commitment:

Short- and medium-term outlook and binding targeting of subsidy support for building renovation:

- Define in advance the amount of funding that will be allocated to these co-financed financial instruments. And thus guarantee the credibility and long-term sustainability of the support.
- Extend the possibility of using co-financed loans and linking them to other subsidy titles (currently only possible under the Repair your grandmother's house programme). Make full use of the financial leverage in cooperation with the private sector (building societies) by allowing anyone wishing to carry out renovations leading to a reduction in energy consumption to benefit from a soft co-financed loan.
- Involving building societies/banks in the renovation passport project, thereby increasing accessibility and removing barriers.
- One stop shops: let the market, especially banks, building societies, into the scheme. The state should set up the system and manage it, monitor the quality of OSS. OSS requirements can be set at the level of EKIS requirements.
- Carbon tax formats with revenues tied into building renovation.

4. Suggestions and incentives for regulatory (mandatory) measures to be implemented by 2030-2033-2035:

- Apply mandatory submission of a valid PENB with a choice between 2 options at the market trigger point when selling a property, renting, donating, changing the function of a building:
 - PENB classification in categories complying with the minimum energy standard A-B-C-D, categories F-G are not allowed (categorization/mean values will be refined according to the results of the building stock survey).
 - Or annual compensation of primary energy in an identical form as for new buildings and in a minimum absolute amount of primary energy to meet the minimum energy standard (to be documented in the DEN (building book database) annually in arrears).

Proposal for the Database of Energy Performance of Buildings (DEN)



- a) Format of a building service book (as for a car) to be passed between owners. Includes the basic obligations of the Directive: PENB; Inspections and checks; Renovation passports; Primary energy compensation documents.
- b) Maximum linkage to the Land Registry.
- c) Maximisation of publicly available data, inter alia, to be used for updates to the building renovation plan.
- d) To be used for state energy inspection by SEI for compliance.





CONCLUSION

The EPBD4 legislation presents a significant opportunity to enhance energy efficiency and reduce the environmental impact of buildings. As industry leaders, we recognize the importance of effective transposition and collaboration with the state sector to achieve the directive's objectives. By implementing our recommendations, we can ensure that EPBD4 drives sustainable building practices and contributes to a greener future. Together, let us seize this opportunity to create a more energy-efficient and environmentally friendly built environment.