



ČESKÁ RADA PRO ŠETRNÉ BUDOVY
CZECH GREEN BUILDING COUNCIL

Legislativní briefing k nové směrnici EPBD

28. 2. 2023

Evropský dům



WORLD
GREEN
BUILDING
COUNCIL



European
Commission

cevre
CONSULTANTS



Legislativní briefing k nové směrnici EPBD

Program:

10.00 – otevření semináře - Josef Schwarz - ekonomický poradce

Zastoupení Evropské komise v ČR

10:10 - stav schvalování směrnice EPBD a její zásadní prvky + dotazy -

Miles Rowland, WGBC Policy Task Force

10:30 - aktuální znění směrnice EPBD + dotazy - Thibault Roy, Policy

Officer European Commission

10:50 – transpozice směrnice EPBD na národní úroveň + diskuze - Jiří

Cihlář, CEVRE

11:30 – závěr

EPBD REVISION

1 March 2023



Miles Rowland

Policy Officer

World Green Building Council



World Green Building Council



Total decarbonisation of the built environment

A built environment that delivers healthy, equitable and resilient buildings, communities and cities.

A built environment that supports the regeneration of resources and natural systems, providing socio-economic benefit through a thriving circular economy

EUROPE REGIONAL NETWORK



ASSA ABLOY



HEIDELBERGCEMENT

KNAUF INSULATION

RAMBOLL



SKANSKA



World Green Building Council

Europe Network



Our Vision

A sustainable built environment at the heart of Europe's future

Our Mission

Unite our whole sector through action and advocacy that accelerates our shift towards this vision.

The need for climate action on buildings

The numbers speak for themselves...

The building and construction sector accounts for:

37% Global energy related emissions

The rebound in global buildings emissions highlights the need for structural change

34% Global energy demand

In 2021, as construction activities rebounded, building energy demand increased by around 4 % from 2020 – largest increase in 10 years.

50% Materials consumption

There is a growing gap between the actual climate performance of the sector and the necessary rate of decarbonisation

Nations Unies Conférence sur les Changements



Paris Agreement

COP21/CMP11

Paris, France

- Set goal of limiting global warming to 1.5 °C to substantially reduce effects of climate change
- Countries have developed Nationally Determined Contributions (NDCs)
- These are national climate action plans with the aim of delivering the Paris climate goal



Global Stocktake 2023

- The GST is a key element of the Paris Agreement that countries engage in every five years to assess collective progress toward the Agreement's long-term goals.
- It aims to inform the next round of national climate commitments to increase ambition and evaluate the need for greater action.
- First GST will finish at COP28 with a summary of key political messages and identify opportunities for greater action.

The EU Green Deal

As part of the Global Stocktake, the EU will need to present progress on its climate targets

2050

Carbon neutrality
Decarbonised building
stock

2030

55% reduction in
emissions



The carbon impact of Europe's buildings

In Europe buildings account for:

- 40% of energy consumption
- 36% of carbon emissions

This incorporates 'Whole Life Carbon' - including both:

Operational carbon from when a building is in use, and

Embodied carbon, arising from a building's construction, demolition and wider supply chain.

To meet the EU's climate change obligations under the Paris Agreement, including the EU Green Deal's 2050 climate goal and Fit for 55, requires a robust and ambitious policy framework that recognises both the impact and potential of buildings.

BuildingLife



European regional project to support and accelerate the ambitions of the EU's Green Deal in the building sector.

So far the project has produced an EU level and 10 national building sector decarbonisation roadmaps.

CzechGBC is joining the project and will be producing its own roadmap.



Energy Performance of Buildings Directive

Background

The Energy Performance of Buildings Directive (EPBD) is the principle EU building regulation which sets standards for new and existing buildings

The law is being revised as part of the 'Fit For 55' package and to decarbonise the EU's building stock by 2050

Through this revision, the European Commission is aiming to:

Deliver the Renovation Wave - at least doubling EU renovation rate by 2030

Improve standards for new buildings

Begin to address the Whole Life Carbon impact of buildings

Energy Performance of Buildings Directive - status



European Commission

Proposed a revised EPBD in Dec 2021, with provisions on Minimum Energy Performance Standards, Zero Emission Buildings, Energy Performance Certificate (EPC) harmonisation & Whole Life Carbon reporting

EU Council

In Oct 2022 during Czech Council Presidency, General Approach agreed by Member States

Reduced ambition of key topics such as MEPS, though maintained provisions such as ZEB, National Building Renovation Plans and EPC harmonisation

European Parliament

Main discussions took place in **Committee on Industry, Research and Energy** (ITRE) - led by Rapporteur Ciaran Cuffe

In February 2023, Ciaran Cuffe and representatives from the EPP, S&D, Renew and the Left came to a compromise agreement, which was voted through by the ITRE Committee on 9 February. A **plenary vote** will follow on 14 March

WorldGBC EPBD activity

European Commission

WorldGBC submitted a position paper in reaction to the Commission's proposal in March 2022 calling for greater ambition in key provisions.

We will shortly publish a policy briefing on harmonising whole life carbon reporting and target setting

EU Council

9 Green Building Councils reached out to over 30 national representatives in EU Energy Council, Perm Reps and Energy Attachés in September & October 2022 with several meetings organised to present key messages.

European Parliament

WorldGBC sent an open letter to MEPs in the ITRE Committee in February 2023 signed by 36 building stakeholder groups representing over 6,000 organisations across Europe.

We also facilitate meetings and communication between GBCs and the MEPs representing their countries

WorldGBC's EPBD position

Minimum Energy Performance Standards

Support the introduction of MEPS which can drive the Renovation Wave - they should be introduced promptly on a pathway to full decarbonisation by 2050.

Energy Performance Certificates

EPCs should be harmonised, with performance classes rescaled with the aim of a zero-emission building stock by 2050. EPCs should include whole life carbon metrics.

Zero Emission Buildings

WorldGBC supports ZEB definition as a much-needed upgrade to NZEB, the definition should be upgraded by 2030 to take into account embodied and operational carbon.

Whole Life Carbon

Whole life carbon reporting should be introduced for all new buildings by 2026 to allow the establishment of whole life carbon benchmarks and limits this decade.

The ITRE EPBD agreement

What does it contain?

The ITRE EPBD agreement contains provisions on:

- Minimum Energy Performance Standards
- Energy Performance Certificate harmonisation
- Zero Emission Buildings
- National Building Renovation Plans
- Whole Life Carbon

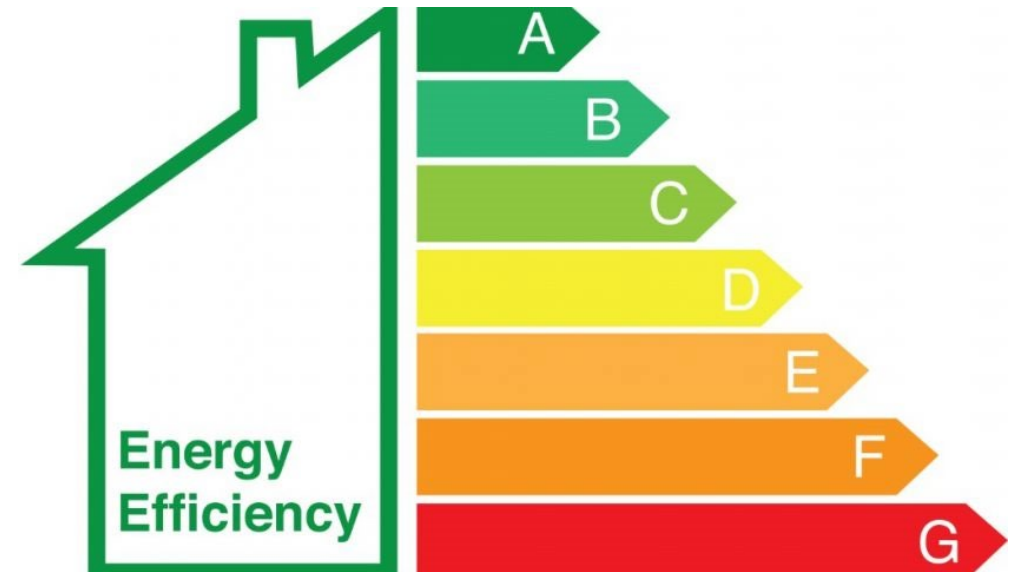
Minimum Energy Performance Standards

Public and non-residential buildings must achieve EPC class E by 2027 and D by 2030

Residential buildings must achieve EPC class E by 2030 and D by 2033

Several exemptions:

- Social housing where renovation would not be cost neutral
- Historic buildings under certain conditions, holiday homes and religious buildings



Energy Performance Certificates

- EU Member States must rescale their **EPC frameworks** from A-F, and comply with a new template by the end of 2025
- G rating represents worst performing 15% of building stock
- Exemption for countries that revised their EPC framework between 2019 and when the EPBD enters into force, who may use their own data and system until the start of 2030
- New A+ class - a building with high efficiency standards, producing more kWh renewable energy on-site; whole life carbon positivity.
- EPCs should contain metrics contain primary and final energy use and WLC reporting data

Zero Emission Buildings

Zero Emission Building (ZEB) is a new standard for buildings originally proposed by the European Commission in the 2021 revision text

It means a building with a very high energy performance, where any very low residual amount of energy still required is fully covered by energy from renewable sources

- From 1 January 2026 - all new public buildings must be ZEB
- From 1 January 2028, all new buildings must be ZEB

National Building Renovation Plans

Member States must develop **National Building Renovation Plans** (NBRPs), with aim of highly energy efficient and decarbonised building stock by 2050

This should be done against a common template, outlined in Annex II of the EPBD revision

NBRPs should include:

- MEPS trajectory in line with pathway for transforming national stock into Zero Emissions Buildings and achieving climate neutrality.
- National targets for achieving deep renovation of at least 35 million building units by 2030 with annual energy renovation rate of 3% or more until 2050.
- Annual operational carbon and Whole Life Carbon reduction, per building type

First draft building renovation plan should be submitted to the Commission by 30 June 2024, and then every 5 years

Whole Life Carbon

Member states must start reporting on Whole Life Carbon (referred to as 'lifecycle Global Warming Potential')

- As of 1 January 2027, for all new buildings.

By the end of 2025, a new Delegated act will be introduced to set out a harmonised EU Whole Life Carbon reporting framework

Based on this methodology, by 1 January 2027, Member States will have to:

- Produce a roadmap containing minimum values on the total WLC of all new buildings
- Set WLC targets for new buildings from 2030.



WorldGBC's position on the EPBD

- WorldGBC believes the cross-party compromise on the EPBD revision, achieved after many months of detailed discussions, represents a **fair and balanced deal** that will deliver for all Europeans.
- This EPBD revision can:
 - **Tackle** climate change and ensure that EU citizens enjoy better-quality buildings
 - **Create 3.3 million** high-quality green jobs in the EU each year
 - **Decrease dependence** on Russian gas and bolster energy security
 - **Bring 35 million** EU citizens out of energy poverty

THANK YOU FOR LISTENING

Any questions?



State of play on buildings policies and on the EPBD recast specifically

Thibault Roy, Policy Officer
European Commission, Unit ENER B.3 – Buildings and products
1 March 2023 – Czech Green Building Council

Outline

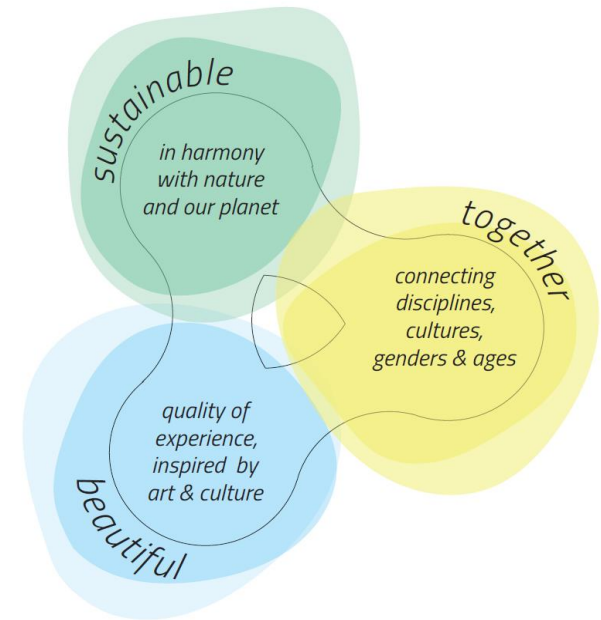
- EPBD process
- Other building blocks going hand in hand with the EPBD
- ITRE report on the EPBD

EPBD process

- ✓ Completion of the legislative negotiations a key priority for 2023
 - ✓ The European Council conclusions of 15 December 2022 call for the swift finalisation of this negotiation as part of the efforts to tackle the current energy crisis.
 - ✓ General Approach in Council in October 2022.
 - ✓ ITRE vote in EP on 9 February. Plenary vote mid-March. Trilogues to follow over the subsequent months at technical and political level before a deal is reached
- ✓ Work on the preparation of recommendations/guidance

Other building-related workstreams - 1/2

- ✓ New European Bauhaus
- ✓ Work on accelerating heat pump deployment. 2023 as year of skills
- ✓ Support for the preparation and completion of a new Taxonomy Environmental Delegated Act



Other building-related workstreams - 2/2

- Analysis and steer on building-related components across operational programmes for Cohesion Policy funds, providing technical input in the context of the European Semester and REPowerEU plans.
- Assessment of the building-related components of the draft updated NECPs (due in June 2023), of the bi-annual reports of NECPs (due in March 2023) and monitoring of the implementation of the Long Term Renovation strategies.
- Work on the transfer of information to the EU Building Stock Observatory, intensifying cooperation with ESTAT to step up buildings data and statistics across the EU.

OBJECTIVES OF THE EPBD REVISION

- **Climate Target Plan:** by 2030 the EU should reduce buildings' GHG emissions by 60%, their final energy consumption by 14% and energy consumption for heating and cooling by 18%.
- **Renovation Wave** aims at doubling renovations by 2030 and foster deep renovations

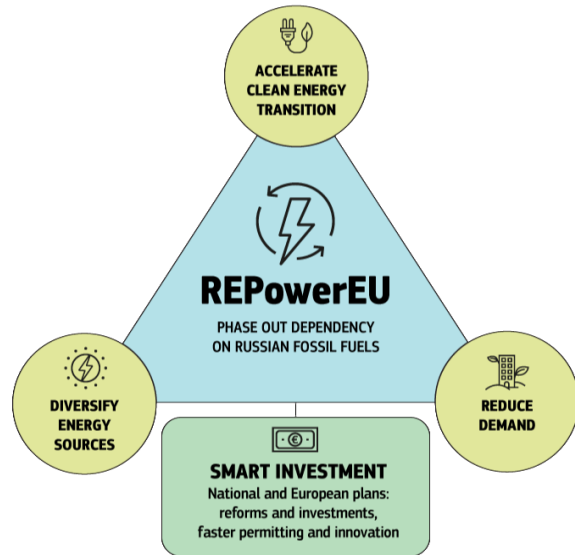


Twofold objective:

→ Contribute to **reducing buildings' GHG emissions and final energy consumption by 2030**

→ Provide a long-term vision for buildings and ensure an adequate contribution to achieving **climate neutrality in 2050**

REPowerEU Plan – importance of buildings – 1/3



For:

- **saving energy**
- **producing clean energy**
- **diversifying energy supplies**

Backed by financial and legal measures to build the new energy infrastructure and system that Europe needs.

Most relevant buildings-related documents:

- ***REPowerEU Communication***
- ***EU Save Energy Communication***
- ***Amendments to Renewable Energy, Energy Performance of Buildings and Energy Efficiency Directives***
- ***Regulation establishing the Recovery and Resilience Facility / Proposal for a Regulation on REPowerEU chapters in recovery and resilience plans / Guidance on recovery and resilience plans in the context of REPowerEU***

...

https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

REPowerEU Plan – importance of buildings – 2/3

Short-term savings through behavioural changes

- **Heating in households and services key. Voluntary behavioural changes of citizens may save about 10 bcm of natural gas with no or very little cost**
 - Examples: draught proofing homes, lowering heat circuit temperature below 60 degrees, turning down heating and turning it off in unused spaces
- **Measures:**
 - (1) Information campaigns**
 - (2) Incitement and supporting actions:** e.g. to use fiscal measures for energy savings, e.g. reduced VAT rates on energy efficient heating systems, building insulation and appliances and products

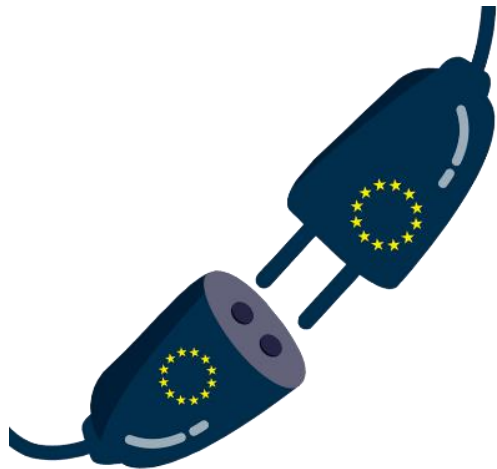
Accelerating mid- to long-term energy efficiency measures

- **Energy efficiency measures and heat pumps deployment in the EU residential sector may save about 37 bcm of natural gas by 2030**
- **Objective: doubling deployment rate of heat pumps** to 10 million units within the following 5 years

REPowerEU Plan – importance of buildings – 3/3

- **Possible strengthening of EPBD proposal measures** in the ongoing co-decision process:
 - **Enhance MEPS:** additional ones, pathway to upgrade worst-performing buildings to “D class”;
 - **Phase out Member States’ subsidies for fossil fuel-based boilers** in buildings anticipated to 2025;
 - **Strengthen national energy (and resource efficiency) requirements of new buildings:** earlier introduction of ZEB, stricter heating systems requirements. Will work hand in hand with the parallel ongoing work on ecodesign and energy labelling for heating and cooling appliances;
 - **Tighten national heating system requirements for existing buildings:** 2029 as an end date for ‘stand-alone’ fossil fuel boilers on the market;
- **Solar: proposed amendments to EPBD:**
 - (1) Optimisation of the solar energy generation from the design stage a must for new buildings;
 - (2) MSs shall ensure the deployment of solar energy installation
 - in new and existing public and commercial buildings by the end of 2026 and 2027 respectively;
 - in all new residential buildings by the end of 2029.

State of play on REPowerEU and relevant policies



- **EU Save Energy Plan** – all MS have taken actions in line with the plan
- **Energy Efficiency Directive** including REPowerEU-amended target - in the final stage of negotiations.
- **Energy Performance of Buildings Directive** including REPowerEU solar amendment – trilogues after EP Plenary vote.
- **Guidance to Member States** on building renovations and energy efficiency priorities in the REPowerEU chapter in the Recovery and Resilience Plans under preparation.
- **Green Deal Industrial Plan** and **upcoming Act** for net-zero technologies

CHANGES TO COMMISSION PROPOSAL IN ITRE REPORT

- Provisions on MEPS, information tools (EPCs, SRI, data exchange, databases), ZEBs, lifecycle emissions, fossil-fuel phase-out, heat pumps, solar energy in buildings
- *New proposed articles:*
 - *Integrated district approaches to building renovation (Article 3a)*
 - *New European Bauhaus (Article 7a)*
 - *Indoor environmental quality (11a)*
 - *One-stop-shops (Article 15a)*



Thank you



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EPBD 4 DOPADY DO PRAXE ČR

JIŘÍ CIHLÁŘ



NULOVÉ BUDOVY



BREEAM, LEED, WELL



DOTACE A FINANCOVÁNÍ



OBNOVITELNÉ ZDROJE



SIMULACE LETNÍ STABILITY



UHLÍKOVÁ STOPA BUDOV



ENERGETICKÝ POSUDEK



ŠKOLENÍ, PORADENSTVÍ





CÍL GREEN DEAL >>> FIT FOR 55

CESTA 1

**SNIŽOVÁNÍ KONEČNÉ
SPOTŘEBY ENERGIE**



**LIMIT
FYZIKA**



2050

**UHLÍKOVÁ NEUTRALITA
CARBON/EMISSION
ZERO**



CESTA 2

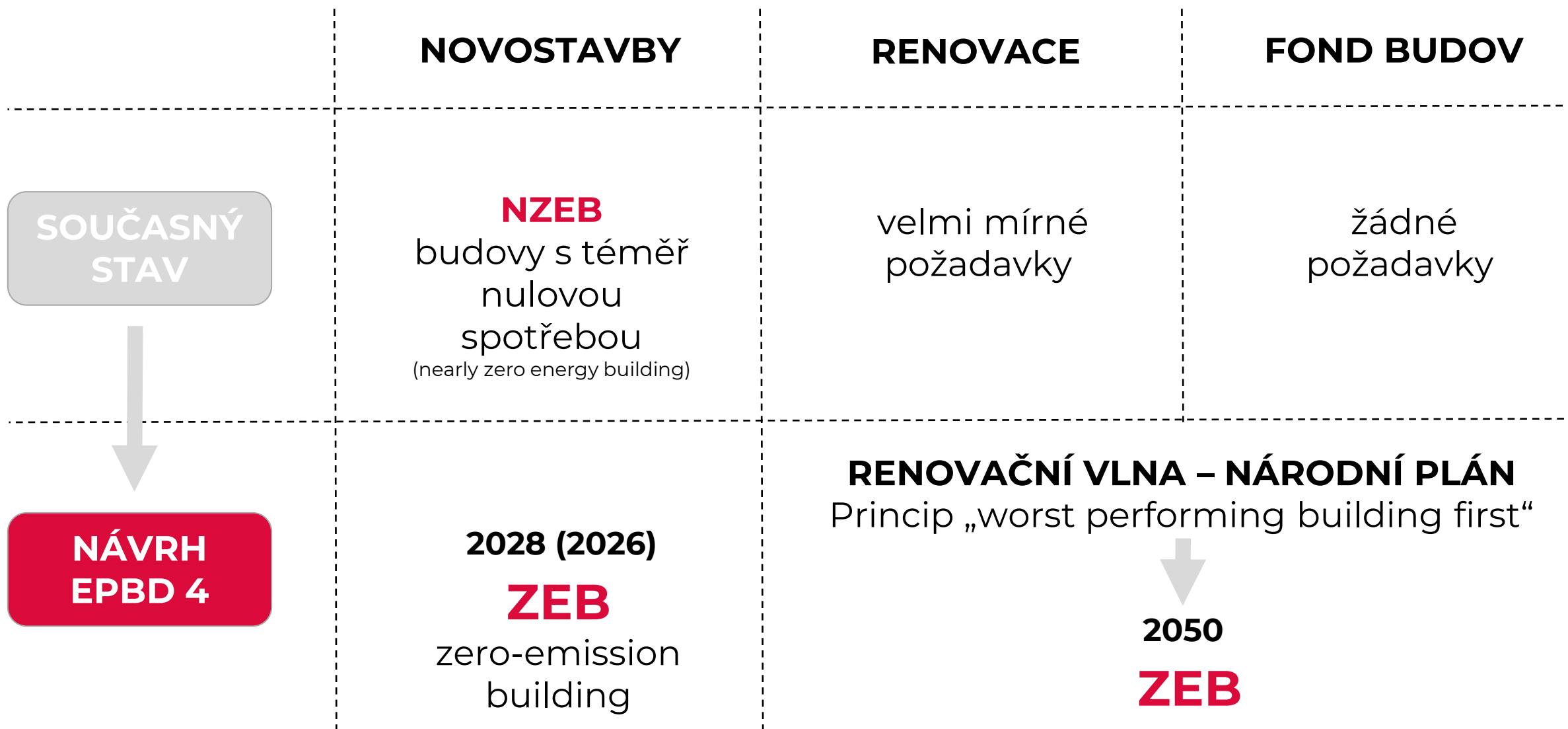
**ZVYŠOVÁNÍ PODÍLU
OBNOVITELNÝCH
ZDROJŮ**



**LIMIT
PROSTOR**

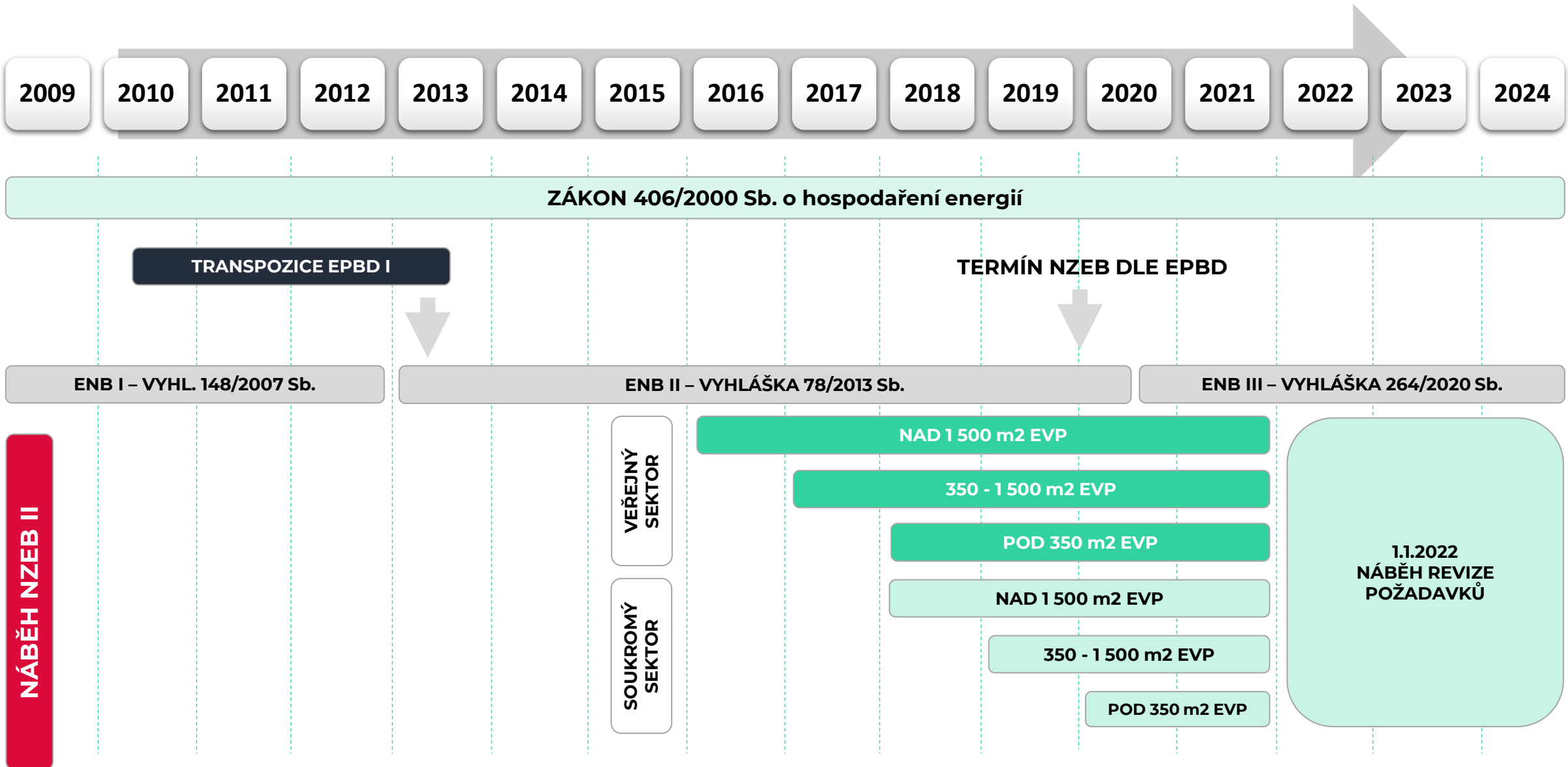


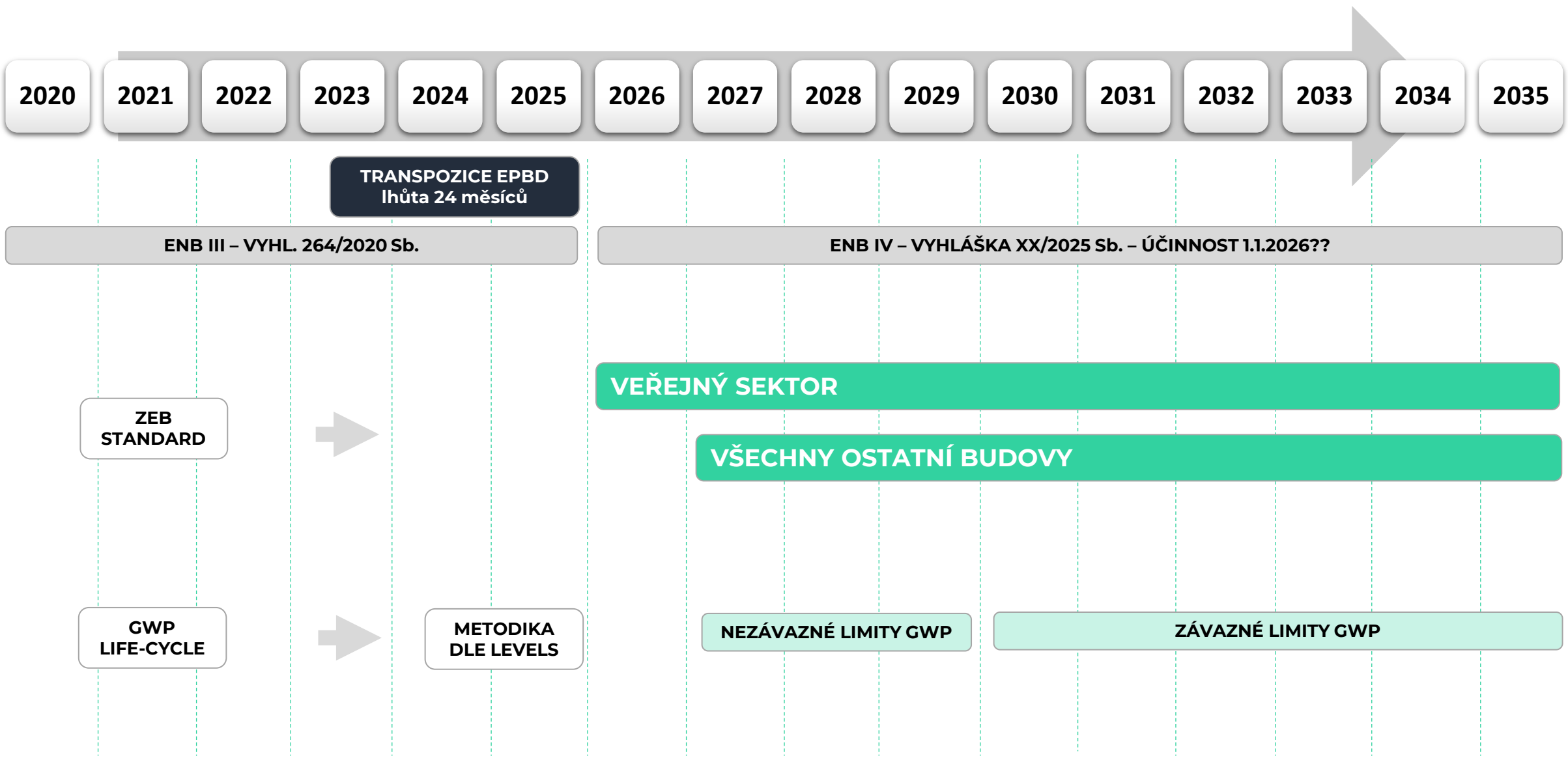
PRINCIPY



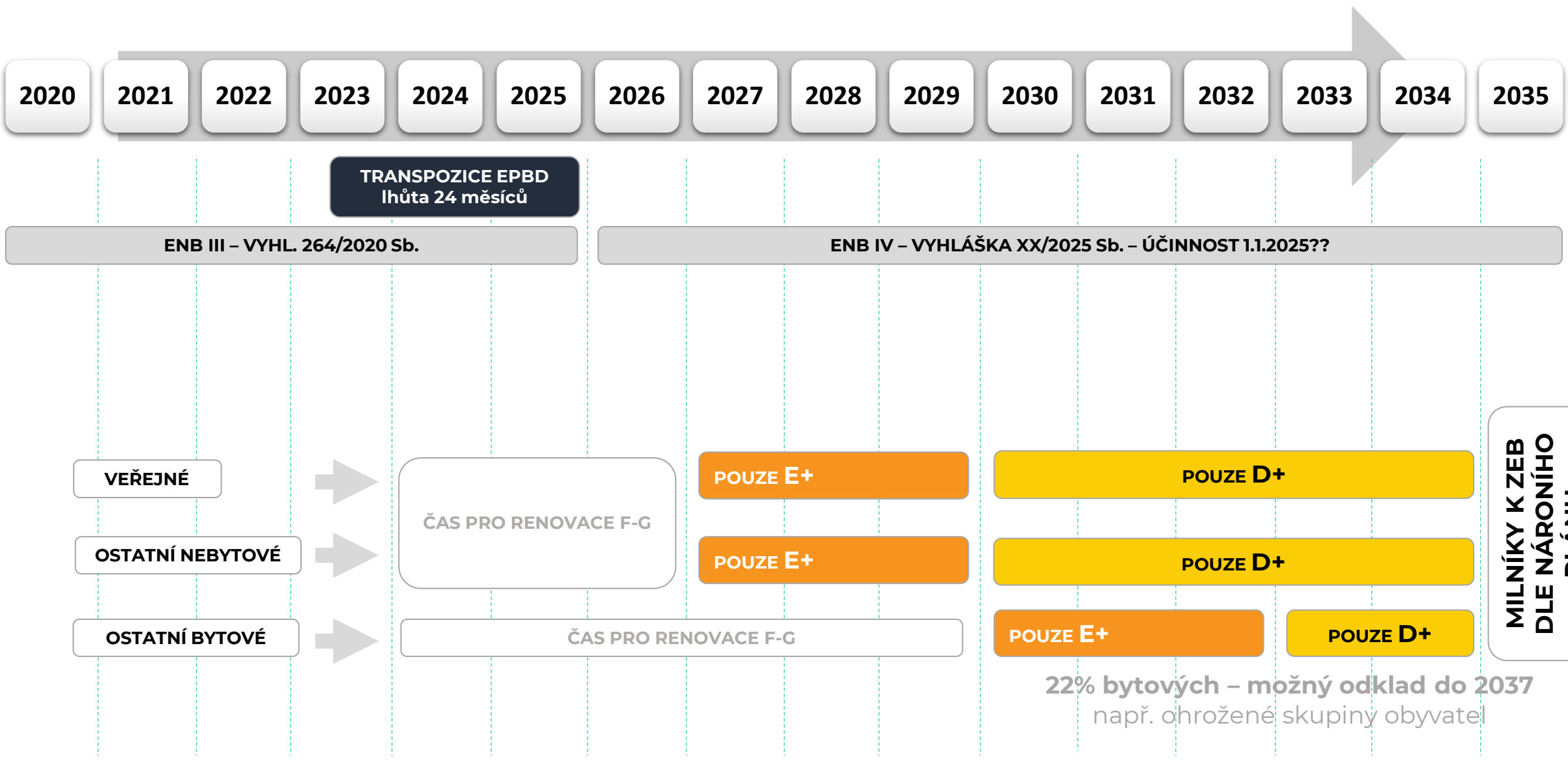


ČASOVÁ OSA - historie





NOVOSTAVBY



RENOVACE

VLASTNÍCI BUDOV (U VEŘEJÉHO I NÁJEM PO ÚČINNOSTI EPBD)



HARMONIZACE PENB – TERMÍN 1. 1. 2026 >> ČR VÝJIMKA 2030

NOVÁ STUPNICE ??



PLUSOVÉ BUDOVY (do 15 kWh/m².rok, pozitivní primár i GWP)

ZEB - ZERO EMISSION BUILDING

ROVNOMĚRNĚ
ROZLOŽENÍ

METODIKA VÝPOČTU ENB
HODINOVÝ KROK

VIZUÁL VÝSTUPU – VÍCE UKAZATELŮ
(příloha V EPBD) – NAPŘ. CO₂

LIFE-CYCLE PŘÍSTUP
HODNOCENÍ GWP SOUČÁSTÍ PENB

**15% NEJHORŠÍCH BUDOV
ZMĚNA DEFINICE PO 2030??**



VÝJIMKA HARMONIZACE PENB
PRO STÁTY, KDE SE DĚLALA REVIZE
VYHLÁŠKY PO 2019

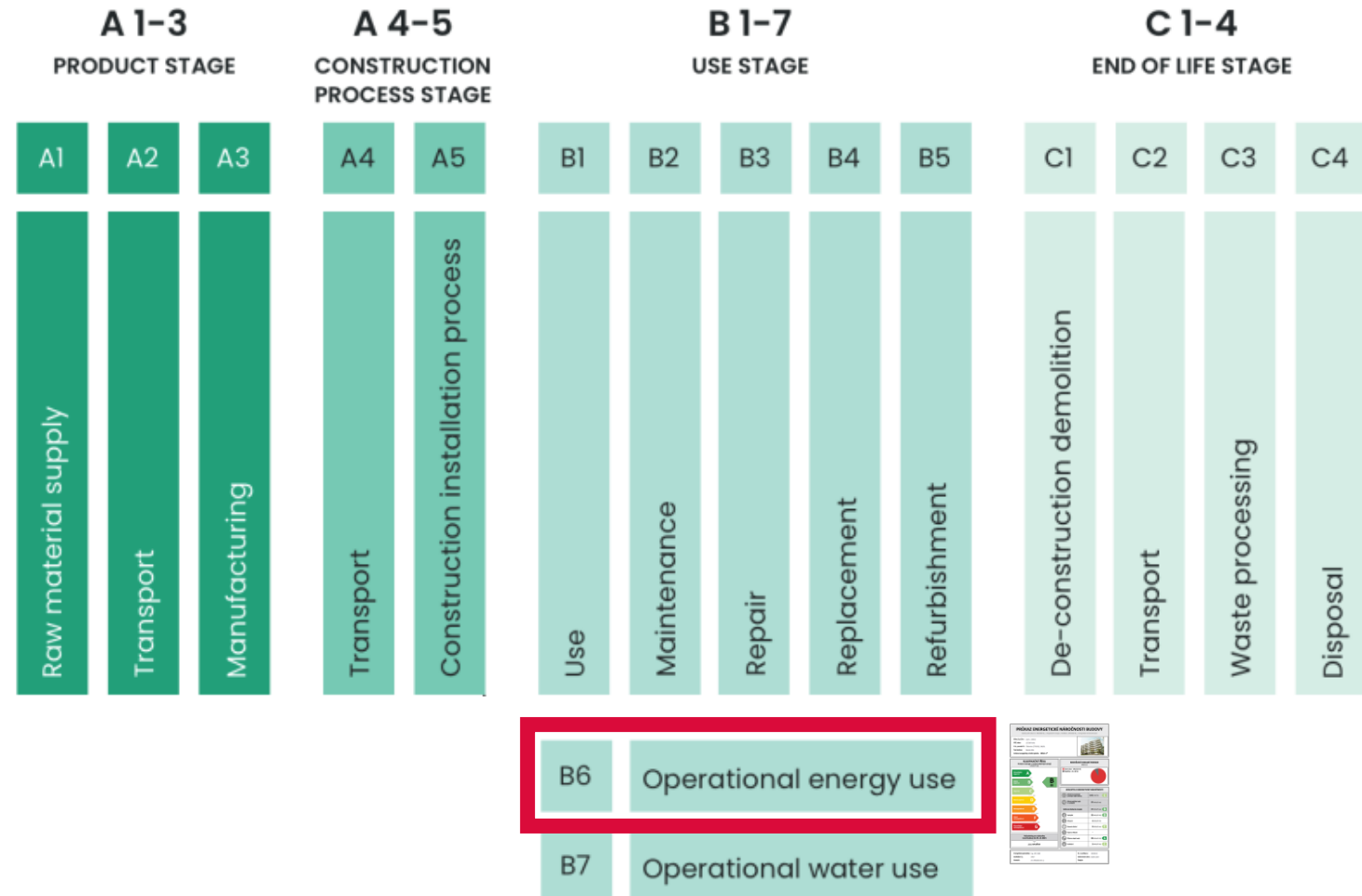
**CO JE
HODNOCENÍ GWP?**



LIFE-CYCLE PŘÍSTUP – HODNOCENÍ GWP

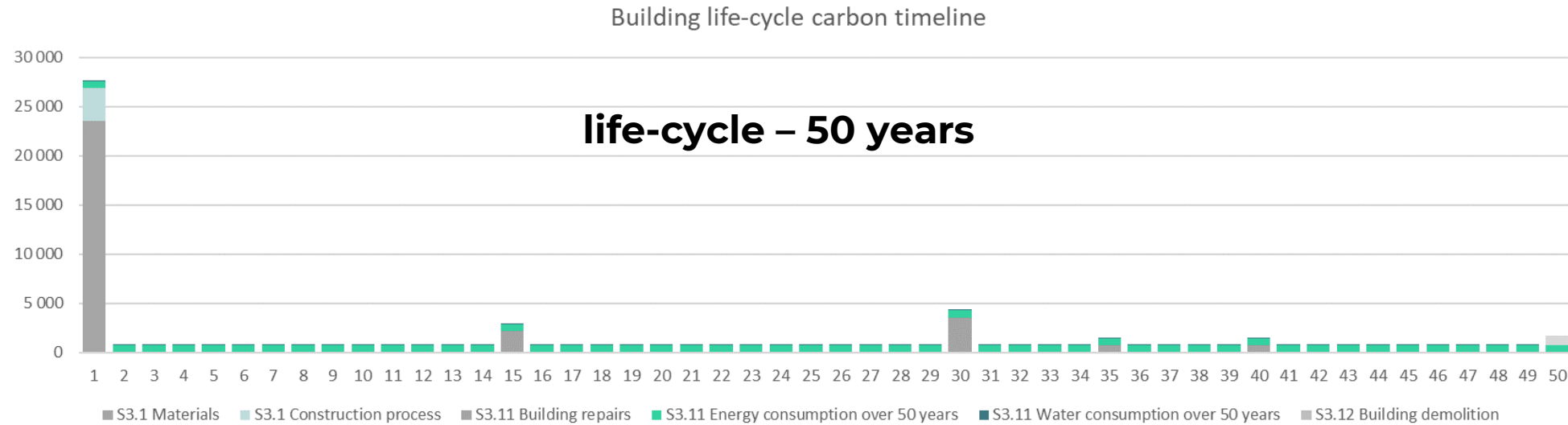
BUILDING LIFE CYCLE INFORMATION

EN 15978



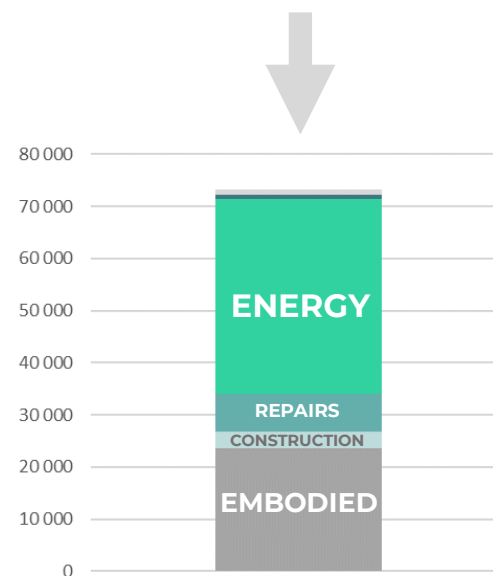


ŽIVOTNÍ CYKLUS BUDOVY Z POHLEDU CO₂e EMISÍ



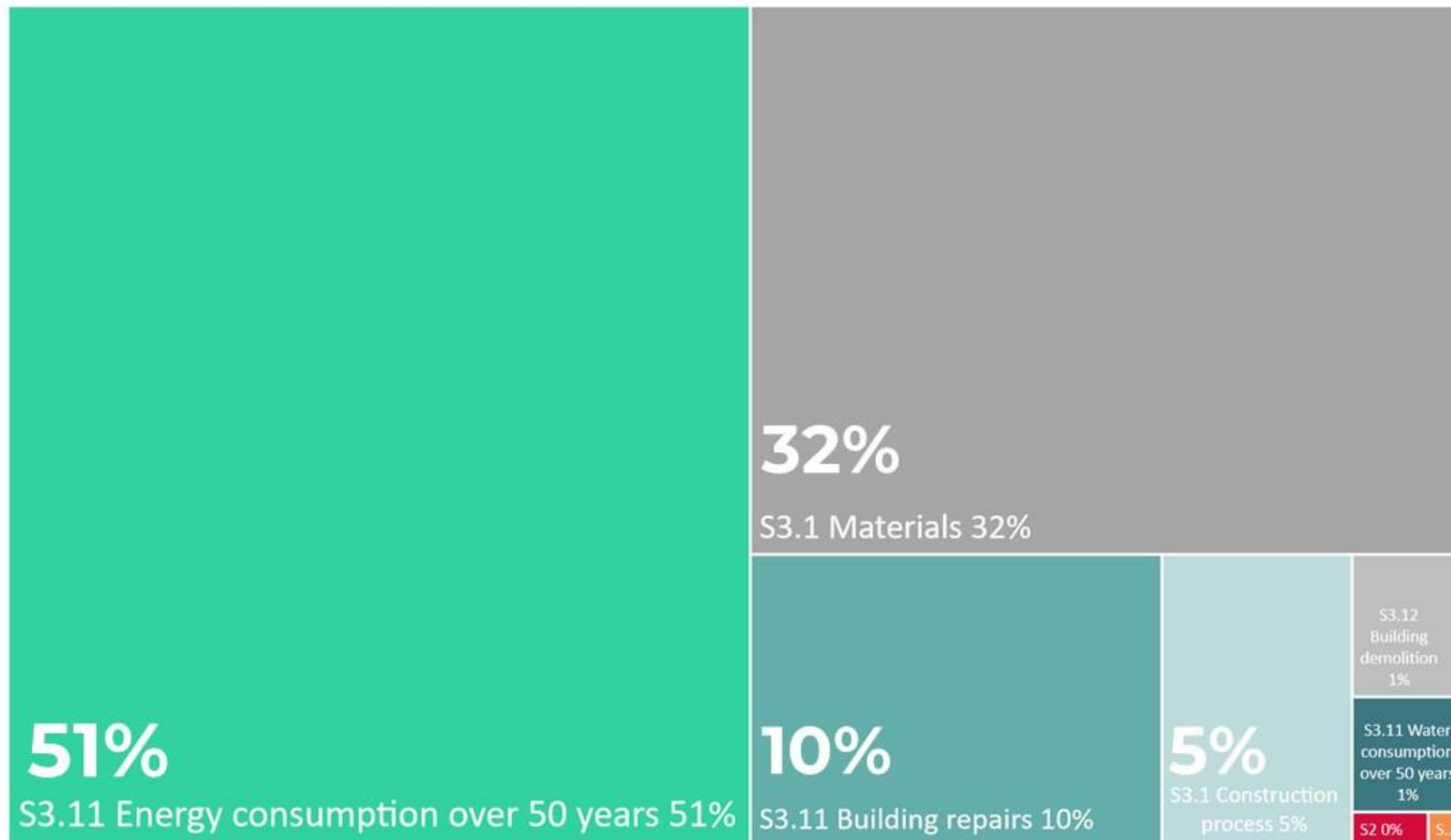
UKAZATEL

roční ekvivalent
kgCO₂ ekv/m²



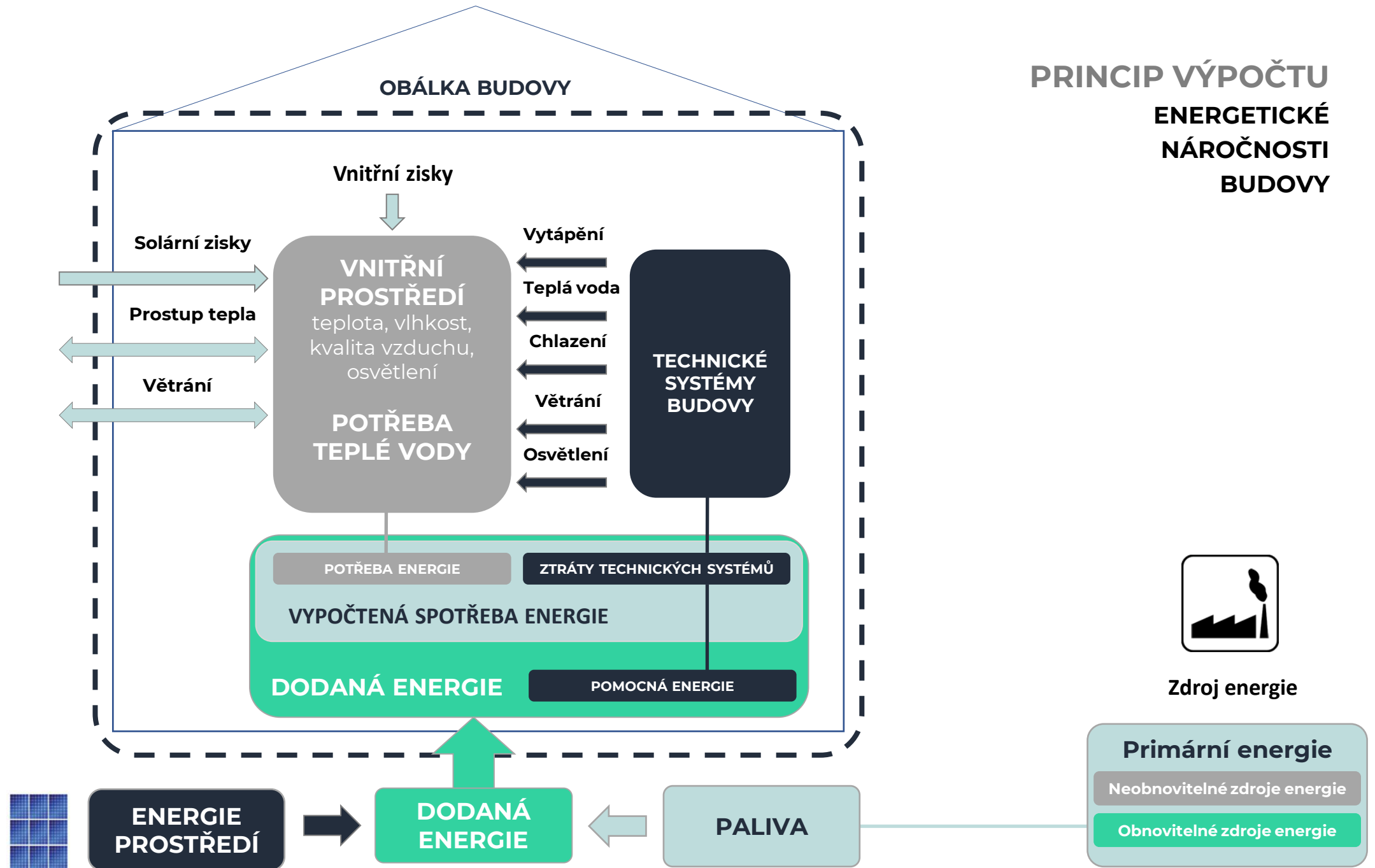


REÁLNÉ ROZLOŽENÍ UHLÍKOVÉ STOPY – BYTOVÝ DŮM



CO JE
ZERO-EMISSION BUILDING

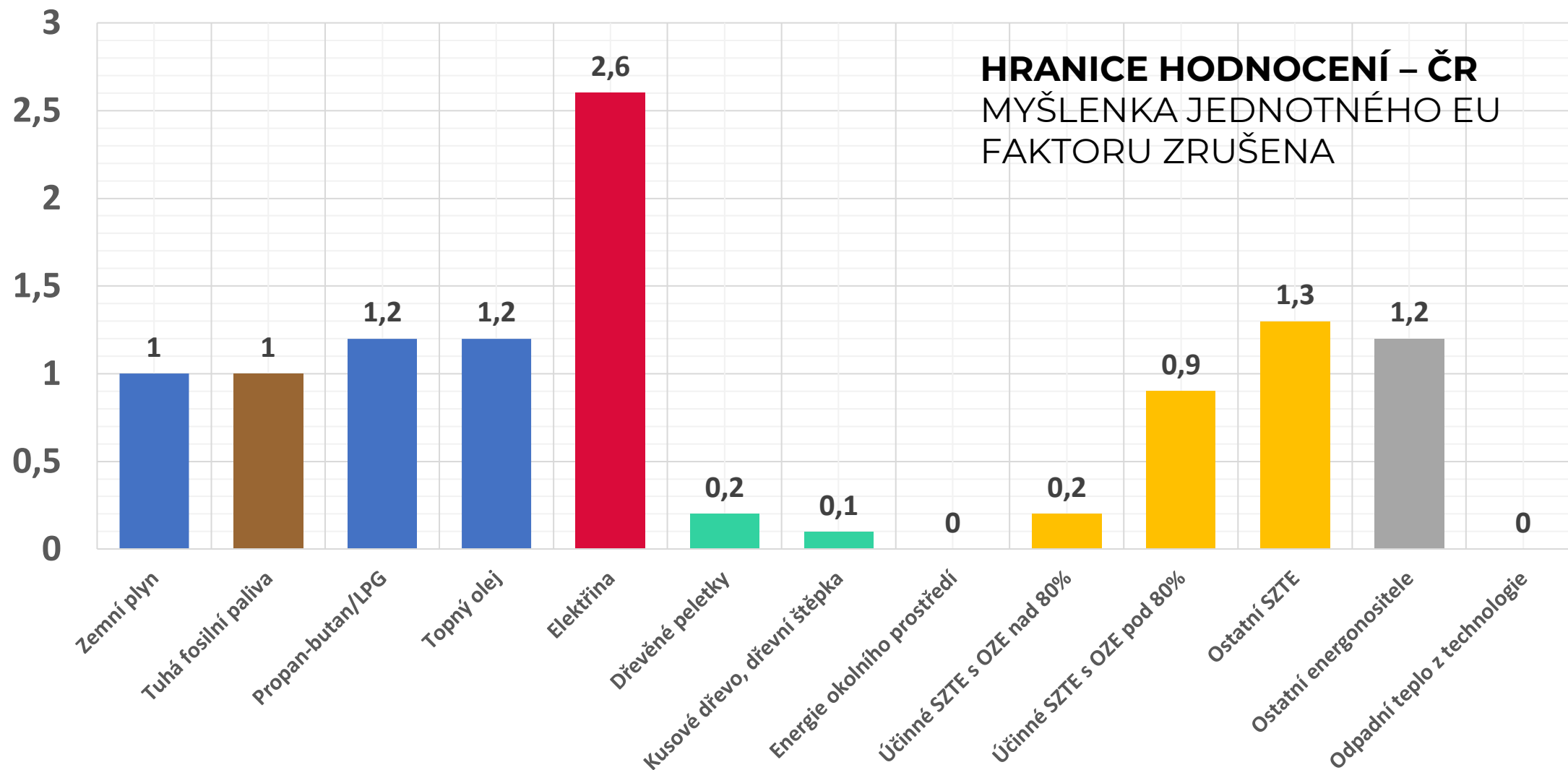
PRINCIP VÝPOČTU ENERGETICKÉ NÁROČNOSTI BUDOVY





ENERGONOSITELE >> FAKTOR PRIMÁRNÍ ENERGIE

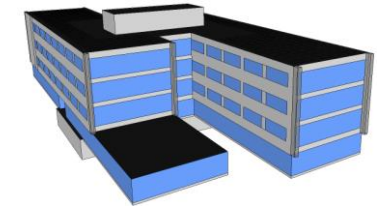
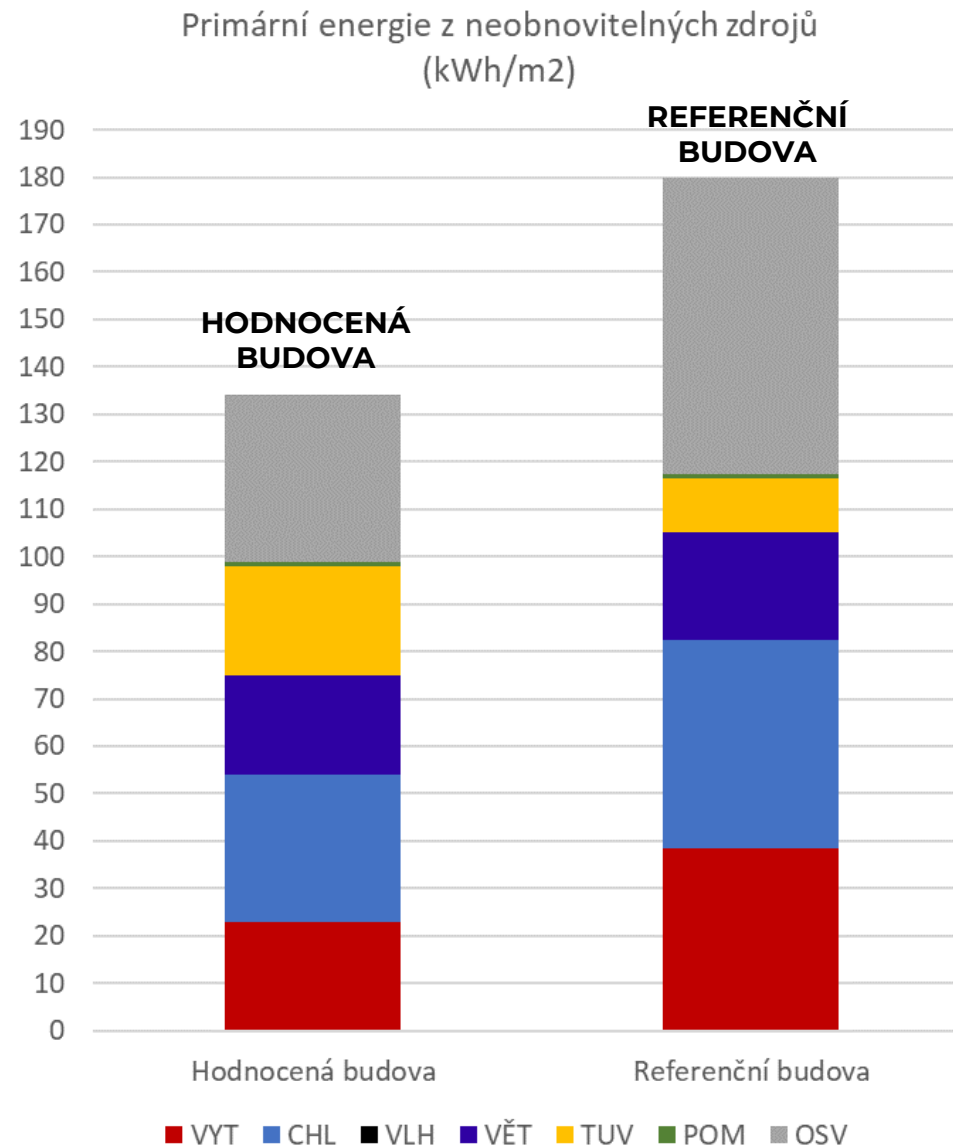
FAKTOR PRIMÁRNÍ ENERGIE Z NEOBNOVITELNÝCH ZDROJŮ





POROVNÁNÍ S REFERENČNÍ BUDOVOU

PRIMÁRNÍ ENERGIE Z NEOBNOVITELNÝCH ZDROJŮ

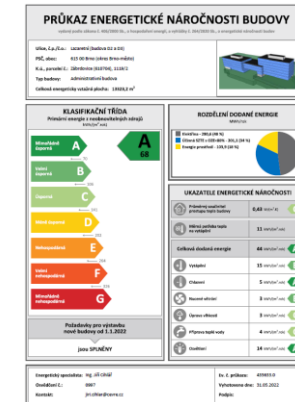
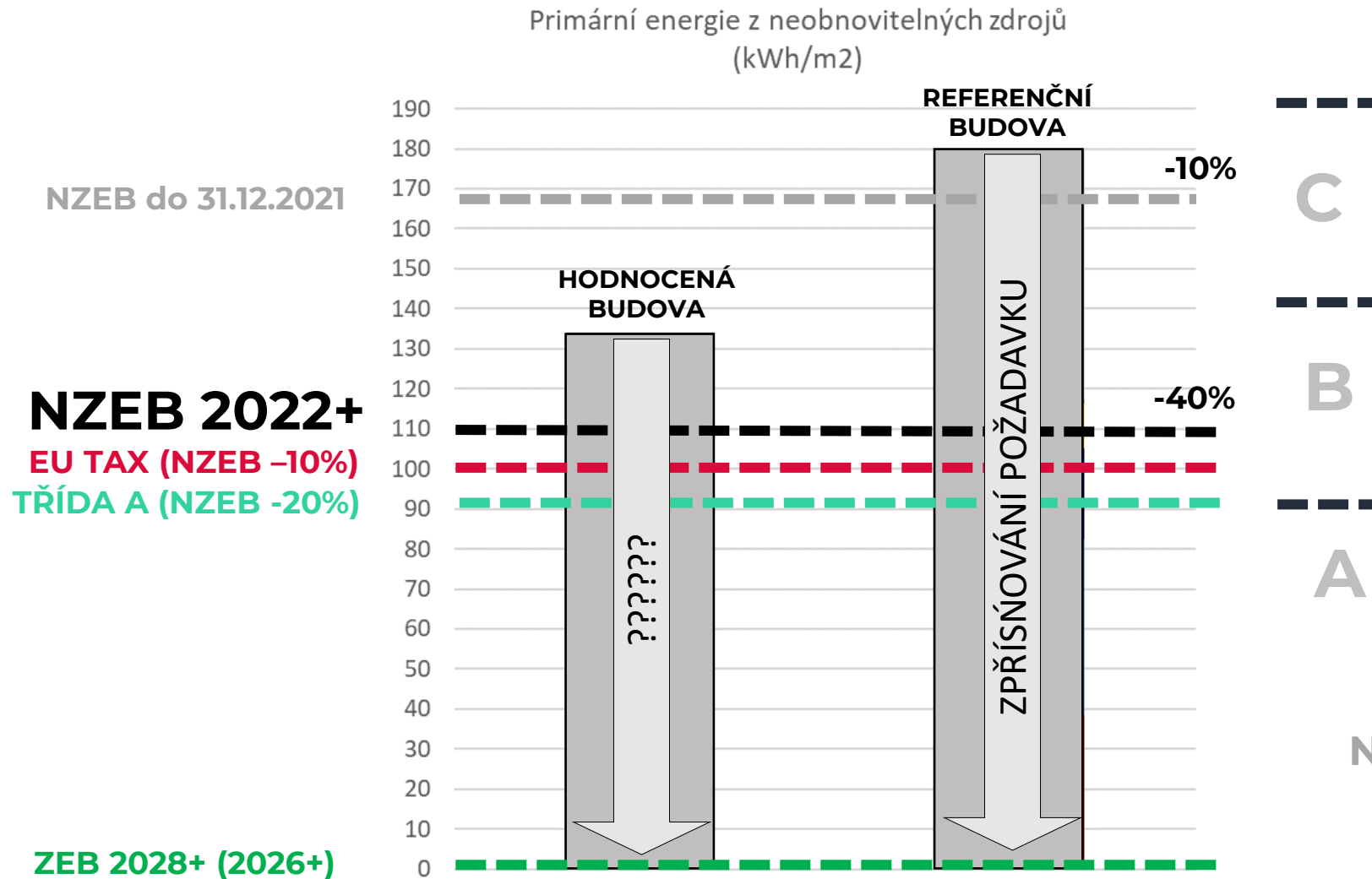


REF. BUDOVA
Vyhl. 264/2020 Sb.

PLYNOVÁ KOTELNA V
BUDOVĚ
VĚTRÁNÍ VZT s ZTZ 30%
KCE 0,7 X UN
BYTY BEZ CHLAZENÍ
ZÁŘIVKY T8
ŽÁDNÉ OZE



POŽADAVKY NA NOVOSTAVBY >>> CELÝ FOND BUDOV



POKRYTÍ POMOCÍ OZE
NA SEZÓNŇÍ NEBO ROČNÍ
BILANCI



OPATŘENÍ PRO SNÍŽENÍ PRIMÁRNÍ ENERGIE

**SNIŽOVÁNÍ KONEČNÉ
SPOTŘEBY ENERGIE**

LIMIT FYZIKA – jsme již na hraně

- **OPTIMALIZACE OBÁLKY BUDOVY**
- **ZVÝŠENÍ ÚČINNOSTI TECHNICKÝCH SYSTÉMŮ**
 - ÚČINNÉ VENTILÁTORY, VYSOKÁ ÚČINNOST ZPĚTNÉHO ZÍSKÁVÁNÍ TEPLA
 - VYUŽITÍ ODPADNÍHO TEPLA Z CHLAZENÍ, ODPADNÍ VODY
 - ENERGETICKY EFEKTIVNÍ OSVĚTLENÍ

ZERO EMISSION:

OBYTNÉ < 65 kWh/m².rok

OFFICE < 85 kWh/m²

OSTATNÍ < NZEB požadavky

(primár bez OZE)



OPATŘENÍ PRO SNÍŽENÍ PRIMÁRNÍ ENERGIE

ZVYŠOVÁNÍ PODÍLU OBNOVITELNÝCH ZDROJŮ

3 MOŽNOSTI DLE EPBD 4:

- 1) ON-SITE VÝROBA >> LIMIT PROSTOR**
- 2) NÁKUP – KOMUNITA, PPA >> DOKLADOVÁNÍ, PRAVIDLA**
- 3) DÁLKOVÉ TEPLA Z OZE / ODPADNÍHO TEPLA >> DOSTUPNOST**

ZEB NESMÍ ZPŮSOBOVAT ŽÁDNÉ CARBON EMISE ON-SITE = ÚPLNÝ STOP PLYNU



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