

ZERO CARBON ROADMAP

Pathway to Climate-Neutral Buildings in the Czech Republic

Key findings

This document is a detailed roadmap for decarbonising the building stock by 2050. The aim is for the country to have a coherent national strategy for energy, climate and building transformation. At the same time, conditions will be created for buildings to have a climate neutral impact in terms of their construction, use, maintenance and renovation, as well as their final disposal.

In order to achieve the set objectives, the following measures need to be implemented:

- At the strategic level, it is essential that the Government of the Czech Republic clearly formulates a **comprehensive national strategy** for climate protection, energy and construction transformation and ensures **coherence of the sub-policies** and strategies. In cooperation with ministries, the **necessary data should be monitored and collected**, specific action plans developed and their implementation monitored.
- At the legislative level, it is crucial to ensure a **predictable legal environment**. This requires timely and high-quality transposition of the relevant directives, definition of the **interpretation of the EU Taxonomy rules** and regulation of the rules for financing energy saving projects.
- In the area of **implementing energy savings**, it is essential to significantly **accelerate high-quality renovation of** existing buildings. It is necessary to **coordinate the** conditions with different ministries and ensure **continuity of** relevant **subsidy programmes** and to involve the financial sector more significantly. These steps need to be supported by the creation of a national contact centre that would ensure that building owners are made aware of the options for implementing energy savings effectively.
- **State and local governments need to embrace this agenda, take responsibility and lead by example** as model investors and stewards of environmentally friendly properties. An important part of this is a systematic promotion of quality planning and preparation of environmentally friendly public procurement, including the use of alternative methods of procurement and financing of investment projects.

- In the area of **reducing embodied emissions**, it is essential to provide building material manufacturers with systematic support aimed at developing and implementing decarbonisation plans for production, non-financial reporting and the development of EPDs. Technical standards need to be updated to increase the use of natural, recycled and other low carbon footprint materials. The use of these materials should be encouraged through bonuses in subsidy programmes. For designers and architects, there is a need to legislate rules for reporting greenhouse gas emissions in buildings and to create a database of embodied emissions of building materials and products. It is also necessary to promote the development of calculation and optimisation tools to support building design.
- In the area of **low carbon energy** development, it is important to continue to support the implementation of renewable energy for all building types and owners. A key component of decarbonising communities is to strongly support the transformation of existing and the construction of new heating systems using low carbon energy sources and the implementation of pilot projects of energy positive neighbourhoods.
- It is necessary to align existing planning instruments (territorial energy concepts, local energy concepts and action plans for sustainable energy and climate) into one coherent plan for energy transformation and the transition to sustainable economy. In addition, it is necessary to ensure a **systematic methodological and project support from the regional levels** to smaller territorial areas in terms of conceptual long-term planning and implementation of investments in high-quality new building construction and building renovations.
- It is essential **to step up support for technical research** on smart grids, energy storage, the development of new materials with a low carbon footprint, new carbon capture and utilisation and storage (CCUS) technologies and piloting energy positive neighbourhoods. In the socio-economic area, it is necessary **to ensure a systematic monitoring of the society's perception of energy transition and sustainability**, and a good under-

standing of target groups, to facilitate communication and motivation to implement energy saving measures. In parallel, the economics of programmes, measures and incentives for key players need to be continuously evaluated.

- **In the field of education, it is essential to reinforce the themes of sustainability, decarbonisation and energy savings at all levels of education.** Existing courses of study need to be expanded and new ones introduced at both the secondary and higher education levels to generate workforce with sufficient expertise and technical skills. In the fields of sustainability, clean energy, circular economy and construction digitalisation, lifelong learning capacities must be expanded to enable re-qualification of existing employees.
- It is essential to ensure a **systematic, long-term information and education campaign to raise awareness of possible measures** to reduce greenhouse gas emissions. The campaign will focus on increasing demand for low-emission solutions in the construction, renovation and operation of buildings and on providing information regarding decarbonisation to construction companies. The format shall be tailored to specific target groups on the basis of systematic sociological research and discussions with experts, industry organisations, professional associations and non-profit organisations.

The transition to sustainable energy and environmentally friendly construction sectors requires a comprehensive and coordinated approach. Some companies have already started to take steps towards this goal. At this point in time, it is essential to secure the cooperation with and support of government institutions, as they have a role in establishing favourable conditions for the implementation of measures aimed at sustainability and decarbonisation of the construction sector in the Czech Republic.

All measures are detailed in chapter 7 of this study.



Zero Carbon Roadmap

Pathway to Climate-Neutral Buildings in the Czech Republic



National strategy:

Comprehensive strategy for climate protection, transformation of energy and construction industry



Reducing embodied emissions:

Support for materials with a low carbon footprint.



Development of low-emission energy:

Renewable energy sources, low-emission heating systems, smart grids, energy positive neighborhoods.



Education and research:

Sustainability, clean energy, sustainable materials.



Public awareness:

Systematic awareness campaigns on reducing emissions.



Exemplary role of state:

High-quality construction and operation of real estate of state institutions with respect to the environment.



Legislative environment:

A transparent environment motivating the implementation of eco-friendly projects.



Realization of energy savings:

Quality renovation, systematic support with the involvement of the financial sector.



Information on EBRD financing and WGBC patronage

The creation of the Roadmap was made possible thanks to cooperation with the World Green Building Council, the large contribution of a wide group of contributors, especially from the ranks of the Council's members, and supported by the European Bank for Reconstruction and Development (EBRD) and the TaiwanBusiness — EBRD Technical Cooperation Fund.