



# R&Dialogue

## D2.3: National Vision Paper

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### Czech Republic

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## National Low Carbon Vision

### Introductory note

This document was developed as part of the European project R&Dialogue (Research and Civil Society Dialogue towards a low-carbon society)<sup>1</sup>, which is funded by the European Union under the 7th Framework Programme for Research, Technological Development and Demonstration Activities. The project aims at promoting and organizationally supporting the social dialogue between research institutions, civil society organizations and other stakeholders on the topic of transition to low carbon energy and - in a broader sense - the low carbon economy and low-carbon society.

The document originated from the work of the National Low-Carbon Dialogue Council<sup>2</sup>, whose task was to prepare and guide (within the project) a dialogue on the low-carbon future in the Czech Republic. The National low carbon vision is a result of the process of the National dialogue on the transition to a low-carbon future, which took place during the period of 2014 - 2015. The first phase of the dialogue was conducted within the National Low-Carbon Dialogue Council; resulting in the Discussion Paper for the Czech national dialogue on the transition to a low-carbon economy. This document became a basis for the second, expanded phase of the dialogue, joined by additional participants through seminars, an online questionnaire and online discussions. Overall, in both phases of the dialogue, more than 100 participants were engaged.

The opinions stated in the National low carbon vision represent a shared position of the members of Czech National Low-Carbon Dialogue Council, who were involved in its preparation, on how the transition to a low-carbon future in the Czech Republic could be carried out. Only those issues on which the Council members agreed were included. Contentious issues were either omitted, or are explicitly mentioned in the text as disputed.

This Vision is based on the knowledge and experience gained in all phases of the national dialogue - from the initial interviews with stakeholders through the dialogue within the National Low-Carbon Dialogue Council to the second, expanded phase of the dialogue.

## 1. Low-carbon society

Within the efforts to achieve sustainable development, the European Union and its Member States agreed on reducing the anthropogenic emissions of greenhouse gases, among which the carbon dioxide is particularly dominant. That's why a transition to a state in which the society produces as little CO<sub>2</sub> as possible, to a so-called „low carbon society“, is necessary.<sup>3</sup>

By „low-carbon society“ we understand, at global and local scales, such human community in which all human needs are satisfied, the quality of life increases, while the production of greenhouse gases gradually declines in the long term. This state can only be achieved by a positive synergic effect of changing human needs and values, transformation of the economy, technologies, consumption and production, especially in energy and transport sectors, and savings. All social groups should actively participate in this process in a variety of ways in order to achieve the highest possible social consensus and to ensure that no group is significantly economically impacted or disadvantaged.

<sup>1</sup> <http://www.rndialogue.eu>

<sup>2</sup> The following members of the National Low-Carbon Dialogue Council were involved in the preparation of the document: Antonín Fejfar, Michal Havel, Vít Hladík, Martin Mikeska, Bedřich Moldan, Ivan Rynda, Pavel Řežábek, Max Wandler, Pavel Zámyslický.

<sup>3</sup> There are different views on the motivation for a transition to a low-carbon society among the participants of the dialogue. For many of them, it is a logical and inevitable response to the endangerment of the global climate system and the way to mitigate climate change and its consequences. For others, it is more about respecting the established international trends and meeting the obligations arising from international agreements, without deeper belief that anthropogenic CO<sub>2</sub> emissions have impact on global climate.

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The European Commission has adopted the idea of a low-carbon society by means of a series of long-term political plans in the fields of climate, energy and transport, as can be most clearly seen in its strategic document „Roadmap for moving to a competitive low carbon economy in 2050“. The long-term goal of the EU is to reduce greenhouse gas emissions by 80-95% by 2050 compared to 1990. As a member of the EU, the Czech Republic must also contribute to this objective.

## 2. How to achieve the low-carbon society?

Decarbonisation should cover all sectors - industry, construction sector, agriculture, services and households. As a motivation for achieving the low-carbon society, either market-based, or administrative approaches can be applied. In practice, however, it will undoubtedly be necessary to use a combination of both, based on economic and social acceptability. It will be important to ensure an adequate predictability and stability of the whole system of measures and coherence between policies and measures at the EU level and at the level of the Member States.

The advantage of the market-based approach lies in reaching the target at the lowest possible costs. The key is the correct setting of the market mechanism. For instance, in the EU ETS, this is being accomplished only in successive iterations. For the period of 2021-2030, the functionality of the new setting of the EU ETS should be carefully and critically verified for all conceivable scenarios of long-term development and with the inclusion of other EU objectives (the share of renewable energy sources, energy efficiency).

Administrative measures can be very precisely targeted to individual goals and areas. They may also be used in a situation where it is decided, for external reasons, to prioritize a particular technology. A suitable solution for an administrative action is to create a long-term strategic programme with clearly defined target state, the fulfilment of which is regularly verified every couple of years, using partial targets. At the same time, an action plan consisting of specific steps related to the partial targets (leading to the fulfilment of the target state) would be formulated in each subsequent period. This approach would also allow to include feedback from the gradually acquired experience (e.g.: in 2030 x% of households will use heat pumps for heating), and in every three to five years the achieved progress and the used tools will be reviewed.

The advantage of the administrative approach can be found in its focus on multiple objectives at once. However, there is a risk of potentially high costs of these measures. Their implementation should therefore be well justified. For certain specific targets, a concrete measure could be supported not only in form of a subsidy for a particular project, but also, e.g., in form of an auction to deliver the required changes. In the future, financial instruments should be applied to a much larger extent, so that the funds invested by the government have higher leverage effect and can ultimately contribute more effectively to achieving the set objective.

Besides the market-based and administrative tools, the support of science, research and innovation, as well as education and awareness-raising, also needs to be mentioned. We can hardly imagine a successful transition to a low-carbon society without the development of these fields.

The individual members of the Council have different views on the adequacy or the range of use of the particular measures and specific technologies. Some would give more space to targeted administrative measures (e.g., thermal insulation, deployment of renewable energy sources and reduction of the volume of transported goods), while others would prefer, for instance, an extension of the EU ETS to as many areas as possible (e.g., transport or fuels for households).

The use of a medium- and long-term strategic programme appears to be a suitable tool for the implementation of the transition to a low-carbon future, supported by 3-to-5-year action plans with specifically defined objectives, responsibility and funding, which are regularly reviewed and updated. To create such a structure, the highest possible social involvement (participation) of all social groups is

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necessary, based on joint implementation of plans and programmes. Such involvement increases the mutual social trust and, consequently, the resulting effectiveness of the transformation.

## 3. International cooperation

Given that climate change has a character of a global issue which arises from the cumulative or synergic reinforcement of local or regional impacts, and the consequences of which are locally and regionally pervasive, it is necessary to maximally involve the world community in terms of reducing greenhouse gas emissions and adaptation to the signs of global change.<sup>4</sup>

Despite considerable efforts to prepare a new agreement under the United Nations Framework Convention on Climate Change over the last approximately 20 years, no outcome which would significantly change the trend of increasing production of the world's emissions has been achieved. On the one hand, the current system within the United Nations framework indeed guarantees that all countries of the world are really involved in this effort, on the other hand, the progress is very slow, and the response of the system to external changes is slow as well. Outside the UN structures themselves, it is possible to record a series of voluntary measures and policies that also bring their results. As an example, we can take the development of emission trading systems that cover an increasing proportion of emissions in the EU, the USA and China. In the future we can expect developments, in which some double-track processes outside and within the United Nations will persist, but where, at the same time, it is possible to use suitable synergies. In terms of preparing their own policies and strategies, the EU, and the Czech Republic, respectively, should not only take the development within the UN into consideration, but also seek their own clear long-term strategies that do not entirely depend on the will and the willingness of others.

In the context of the European Union, the Czech Republic should strive for clearly defined, long-term and binding objectives. In the past, the EU has shown that it can differentiate between different Member States and has displayed solidarity in setting goals and means to fulfil them. This experience can certainly be applied also in the international field, where it is necessary to similarly differentiate between the poor and the rich, with regard to the likely potential to reduce emissions, as well as costs of different policies and measures.

## 4. The role of science, research and development

Science, research and development (R&D) play a significant role in the transition to a low-carbon economy. Their potential in supporting the development of low-carbon technologies is immense, mainly taken from the following two perspectives:

- R&D can significantly contribute to reducing the costs associated with deployment and operation of low-carbon technologies (as it has been successfully achieved, e.g., in the case of reduction of production costs of photovoltaic panels)
- In an ideal case, the results of R&D could bring "breakthrough technologies", the application of which in practice will mean a fundamental change in the current view of the possibilities of existing low-carbon technologies. These may be fundamental discoveries, for instance, in the field of energy storage, new materials, or even nuclear energy.

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<sup>4</sup> There is no consensus among the participants of the dialogue on how actively or passively the Czech Republic should engage at the international level.

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There is a general consensus that the government should support science, research and development. This goes undisputed for the basic research. For the applied research and the implementation of new technologies, this agreement is not unambiguous, particularly in terms of the criteria by which the support should be provided. Among the opinions on this topic, we can roughly identify 3 main opinions:

- The market demand should decide what type of research (especially applied research) should be promoted.
- The research teams that are already established, which have proven to be successful and have clear results, should be primarily supported. The field of research is not so important here.
- The state should support R&D in selected fields with close links to the national strategic priorities (e. g., a national strategy for the transition to a low-carbon economy), while the support for the other fields of research should be reduced.

## 5. The role of the dialogue

One of the basic prerequisites for the realization of joint steps towards a low-carbon economy is education and development of critical thinking at all levels, and the resulting quality of broad social debate. At the same time, the transition to a low-carbon society could be grasped as an opportunity for each social group to participate in the related changes by the benefits coming, e. g., from a change in the lifestyle or from social (and material) appreciation and reward for the work towards the change (e.g., development, manufacture and application of low carbon technologies).

In the Czech society, there is no consensus on the issue of which way and how fast to proceed to a low-carbon society and which technologies to prioritize. For instance, in energy, a fundamental disagreement persists on the question of the role and importance of nuclear energy and renewable energy sources in the future energy mix. An open-minded, unbiased and factually, not ideologically founded dialogue of the proponents of various technological solutions could certainly contribute to the gradual convergence of opinions and seeking a universally beneficial consensus.

A dialogue opens the way to finding the generally acceptable notions of the common good, the following of which is a shared project of all the participants and is not perceived as imposed "from the top". It provides a platform to clarify the potential benefits, risks and costs of specific actions in the energy industry and the whole economy, contributing thus to their equitable societal distribution. It enables the participants to overcome their possible feeling of helplessness, to realize their own role, responsibility and the added value of their activity.

An inclusive and clearly structured dialogue, regardless of its outcome, contributes to the creation of communication channels between the various social actors that can be used in the future. The advantage of direct contact between groups that are interested in different aspects and dimensions of the low-carbon society concept is in particular the mutual learning, exchange of knowledge and experience, reducing the risk of misinterpretation or misunderstanding of mutual positions, and the possibility of a flexible and immediate response to the proposals from other parties. The national dialogue in the framework of the R&Dialogue project may serve to create a common vision of the dialogue format which could be used throughout the whole process of societal transition.

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## 6. Recommendations for further steps towards a low-carbon society (“Action Plan”):

- To develop a medium- and long-term strategic programme of transition to a low-carbon economy, within which 3-to-5-year action plans with clearly defined objectives, responsibilities and funding will be developed, updated and re-evaluated.
- To ensure the highest possible social involvement (participation) of all social groups, based on joint implementation of plans and programmes, which increases the mutual social trust and, consequently, the resulting effectiveness of the transformation.
- To strive for an own, clear, long-term strategy of decarbonisation within the EU, which won't entirely depend on the will and the willingness of others (e.g., on the processes within the UN).
- To promote research, development and innovation aiming at reduction of the costs associated with the deployment and operation of low-carbon technologies, and, possibly, at developing "breakthrough technologies", the application of which in practice will mean a fundamental change in the current view of the possibilities of existing low-carbon technologies.
- To promote education and development of critical thinking at all levels, as one of the prerequisites for a high-quality, broad societal debate on the transition to a low-carbon future.
- To initiate and promote an open-minded, unbiased and factually, not ideologically founded dialogue of the proponents of various technological solutions, in order to contribute to the gradual convergence of opinions and the search for a universally beneficial consensus.
- To strive for a social dialogue on the transition to a low-carbon society which is inclusive and clearly structured, which contributes to the creation of long-term communication channels between different social actors, their mutual acquaintance, exchange of knowledge and experience, which reduces the risk of misinterpretation or misunderstanding of the respective positions and which enables a flexible, immediate response to the proposals of other parties.

*Prague, September 2015*