
Towards climate neutrality in the buildings sector

10 Recommendations for a socially
equitable transformation by 2045

EXECUTIVE SUMMARY

Agora
Energiewende



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Preface

Dear reader,

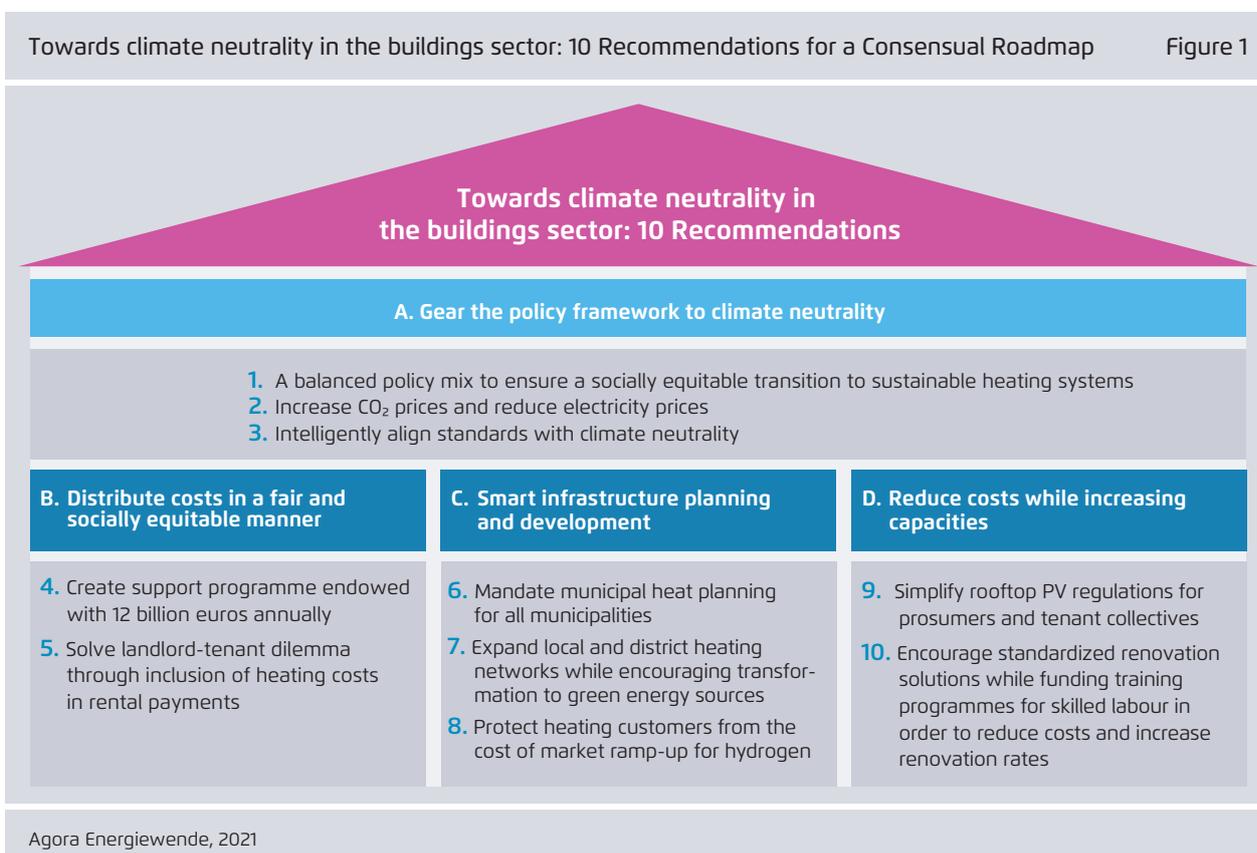
As the EU mobilizes to achieve climate neutrality by 2050, increasing attention is being focused on the decarbonization of the buildings sector, in part because the required change promises to touch the lives of every resident in the eurozone. Accordingly, as we deliberate the best way forward, it will be crucial to ensure a socially equitable transformation process. Policies to reduce emissions will need to be combined with instruments that fairly distribute the cost burden of decarbonization. At the same time, our effort to guarantee the right of future generations to an intact environment will need to be carefully reconciled with the right of European citizens to affordable energy and housing. In forging a path to net zero, we will need to balance the interests of tenants, landlords, real estate companies, and energy providers, as a failure to adequately consider the interests of relevant stake-

holders could call forth political opposition that endangers the transformation process as a whole.

In this way, the strategy that is ultimately pursued must take into account a variety of considerations if it is to be both fair and politically viable. The “Fit for 55” package provides us with a unique window of opportunity to take robust action. We believe the policy recommendations presented in this study are well-tailored to achieve the goal of rapid and ambitious climate action while also giving balanced consideration to all who will be affected by change.

I hope you find this report both informative and stimulating.

Yours sincerely,
Patrick Graichen
 Executive Director, *Agora Energiewende*



Executive Summary

There is an enormous need for policy action in the buildings sector – not only to reduce the sector's greenhouse gas emissions, but also to address the current lack of affordable housing. To be sure, Germany's goal of achieving climate neutrality by 2045 will necessitate far-reaching change over the next 25 years, including enormous investments in new technologies and infrastructure (Agora Energiewende, 2021a). Considerations of intergenerational justice also demand that we achieve ambitious GHG reductions over the near term, so that responsibility is not shifted to future generations.

When designing policies to address this challenging situation, it will be crucial to equitably distribute costs and benefits while also resolving the so-called landlord – tenant dilemma.¹ Accordingly, climate protection must be understood as the responsibility of society as a whole. Furthermore, the longer we wait to take action, the greater the risk of socio-economic dislocation and higher transformation costs.

In order to catalyse action in the buildings sector, we advocate the development of a consensual policy roadmap that balances costs and benefits between relevant interest groups. Key stakeholders include the real estate industry, energy providers, landlords, tenants, and civil society. These stakeholders must be brought together to negotiate the terms of an agreement that can serve as a basis for specific policy measures. As part of these negotiations, the overarching aim must be to identify a path to climate neutrality in the buildings sector by 2045. Against the backdrop of the "Fit for 55" climate package, now is time to define a transparent strategy that enables planning security for investment decisions while also

preventing malinvestment with negative lock-in effects.

Climate protection is the responsibility of society as a whole. And the decarbonization of the building stock is no exception to this rule, not least because we will all be affected by it, whether as a tenant or owner-occupier. The socially equitable transition to sustainable heating will be indispensable for the success of the broader clean energy transition. Accordingly, measures to achieve climate neutrality in the buildings sector must be chosen carefully, because they will have wide-ranging knock-on effects in other sectors. A half-hearted and unbalanced approach that forces us to enact even tougher measures in future years in order to achieve climate protection goals will have a direct impact on all citizens by increasing economic costs and exacerbating socioeconomic disparities. In addition, delayed or ineffective action will lead to additional costs for future generations.

The landscape of actors in the buildings sector is particularly heterogeneous. Policy decisions will not only impact housing residents (i.e. tenants and owner-occupiers), but will also affect real estate management companies, housing developers, landlords, and energy suppliers. Therefore, we need to arrive at a broad consensus over the near term on how to achieve climate neutrality in the buildings sector by 2045 at the latest. This consensus will need to take into account the interests and needs of all concerned stakeholders. Indeed, broad support for the policy measures will be a basic prerequisite for achieving climate protection goals in the buildings sector in a manner that is socially equitable for current and future generations.

1 As tenants are normally responsible for heating costs, landlords have little incentive to invest in energy efficiency.

On the one hand, the consensus that is achieved must preserve social peace by protecting households from excessive financial burdens. This includes owner-occupiers (who must be in a position to afford energy efficient renovation measures) as well as renters. Tenants have virtually no influence over the space heating systems used in their home. At the same time, they may have to face significantly higher rental costs in the event renovations are performed to enhance energy efficiency. If the costs of making space and water heating more energy efficient are primarily passed along to tenants, the political endeavour as a whole will fail, as it would place a greater financial burden on low-income households than they can bear.

At the same time, the developed political consensus must take into account that landlords can only become proactive agents of change if energy-efficient renovations are both economically feasible and financially worthwhile. Like any other business, real estate companies have to meet the profit expectations of their investors, and must assess investment decisions from an economic perspective. Forcing small-scale landlords to shoulder inordinate burdens is also not a viable solution for financing the refurbishment of the building stock. In the electricity sector, the clean energy transformation to date has been based on the principle that those who invest in new technologies must also be allowed to earn an adequate return on their investment. This principle should also guide climate policies in the buildings sector. For clearly, if policymakers make renting apartments unprofitable for landlords, landlords are likely to simply convert their apartment blocks into condominiums and sell them.

Against the backdrop of current deliberations to expand the European Emissions Trading Scheme to the buildings sector, we must strive to develop a socially equitable climate change policy that removes obstacles of an economic or regulatory nature so that the transformation can proceed as smoothly as possible. When a cheap option for preventing the

release of a ton of CO₂ is available but left exploited, then abatement with a more expensive option becomes necessary. As a policy mechanism, emissions trading spreads costs broadly across the entire population. This may result in a particular high burden being placed on low-income groups.

What would be the hallmarks of a consensus that ensures affordable, energy-efficient housing for all income groups, in addition to climate neutrality by 2045 at the latest?

In this study, we present 10 recommendations for the decarbonization of the buildings sector, organized into four categories:

→ **Gear the policy framework to climate neutrality:**

On the one hand, emissions trading and technical standards for buildings need to reflect Germany's expedited timetable for carbon neutrality (by 2045, rather than 2050, as previously envisioned). Accordingly, it should aim to make every investment in energy efficient renovation or new heating systems compatible with the goal of decarbonization. On the other hand, a rigorous policy approach in this area demands that we anticipate and address undesired side effects, such as socio-economic hardships. Accordingly, when it comes to the worst buildings that would particularly benefit from renovation, in addition to requiring adherence to the minimum energy standards announced in the Renovation Wave, we should provide flexible implementation options while also granting assistance for hardship cases. Indeed, climate neutrality by 2045 can only be achieved if there is broad support for the transition across all stakeholder groups. If certain actors are forced to accept disproportionate burdens, ensuing political conflicts could jeopardize the larger project.

→ **Distribute costs in a fair and socially equitable manner:**

This means that all actors with an interest in climate protection should bear their fair share of the costs. This includes not only tenants and

landlords, but also the government, which represents the public interest in the area of climate policy. In practice, this means that the government should provide support payments to ensure that private-sector investment in climate protection makes economic sense. Furthermore, in the interest of a fair cost distribution, price incentives should focus on the actor with the greatest influence over the CO₂ emissions produced by a building – namely, landlords or owner-occupiers.

→ **Smart infrastructure planning and development:**

As the sustainable energy system that is envisioned for 2045 will include both decentralized heating systems to heat individual buildings as well as centralized heating networks that serve residential developments or entire towns, the policy framework should encourage the development of the most expedient solutions in each case. This can be achieved by municipal planning that designates priority areas for the development of large-scale heating networks while also keeping in mind the scarcity of resources such as biomass and hydrogen. As the operators of district heating networks face the double challenge of having to expand their grids while at the same time transforming the underlying sources of energy, district heating networks should be promoted in a targeted manner. Hydrogen-based heating solutions, by contrast, have yet to prove they are a cost-effective option for climate-neutral water or space heating. Above all, lock-in effects that push households towards an expensive technology over the long term must be avoided.

→ **Reduce costs while increasing capacities:** For the complete transformation of the building sector, a two-track strategy will be necessary: On the one hand, investments should be made to expand skilled labour, so that the current shortage can be quickly overcome. On the other hand, there is a need to promote standardized renovation solutions and components, as the development of a mass market for energy efficient renovation would

augment productivity while reducing costs, thanks to economies of scale.

The foregoing recommendations aim to ensure that the decarbonisation of the building sector is addressed in a holistic fashion. Policy measures that give due consideration to these recommendations would enable the achievement of climate targets in a socially equitable manner. Furthermore, the implementation of our policy recommendations would present economic opportunities for private actors ready to develop innovative solutions, e.g. in the area of standardized renovation solutions or green heating systems. This would strengthen German and European business and industry, and, by extension, bolster economic prosperity.

About Agora Energiewende

Agora Energiewende develops scientifically sound, politically feasible ways to ensure the success of the energy transition – in Germany, Europe and the rest of the world. The organization works independently of economic and partisan interests. Its only commitment is to climate action.



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