

POLICY PROPOSAL - 2022 No.12

HOW TO MANAGE THE GREEN TRANSITION?

The Equilibrium Institute's proposals for addressing the short-term challenges of greening the building sector in Hungary



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Future for Hungary ▶▶

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EXECUTIVE SUMMARY

01

Achieving climate neutrality will require greenhouse gas emission reductions in all sectors, but the building sector can already deliver impressive results in the coming years. This requires 100,000 homes per year to undergo deep renovation – that is the way forward to decarbonise the entire housing stock by 2050.

02

While realizing the deep renovation of 100,000 homes per year, three main challenges have to be addressed: 1) the rising construction prices and labour shortages, 2) the capacity constraints of the electricity grid, 3) the social challenges linked to decarbonisation (housing poverty, fuel poverty).

03

Let's develop a building energy efficiency programme that spans several electoral cycles to avoid rising commodity prices and labour shortages! First, let's assess the total housing stock! To this end, it should be compulsory for all housing to have an energy performance certificate within five years! This certificate should be the basis for all future renovation subsidies!

04

To reduce the construction capacity gap, let's shift the focus from new construction to renovation! Let's establish a clear renovation plan for different types of properties! The supply of products needed for building energy investments shall be broadened!

05

In vocational training, let's link the tackling of labour market difficulties with the green transition! Let's support retraining for skills in the construction sector that are in short supply during the period when the jobseeker's allowance is being paid! Make it easier for construction professionals from outside the European Union to work in Hungary!

06

To address housing difficulties, a public benefit and social rental housing programme shall be started! To reduce price inflation, let's discourage the purchase of residential property for investment purposes by increasing the property purchase tax in cases where the buyer already owns the property!

07

Let's reform the solid fuel subsidy system to avoid an increase in air pollution from individual fuel combustion used for heating, cooking and hot water purposes!

08

Let's set a long-term deadline after which the renovation subsidy will no longer be available, or will only be available in a less advantageous scheme! A one-stop-shop network of advisers with accredited professionals shall be set up to manage renovations!

1. WHAT IS THE PROBLEM?

As a member of the European Union, **Hungary has committed** (including in its national climate law) **to fully decarbonise its economy by 2050**. This requires reducing greenhouse gas emissions in all sectors, which will affect every aspect of our lives, from production methods to transport and nutrition. However, **we could make impressive progress in the building sector in the coming years. To this end 100,000 homes need to undergo deep renovation every year until 2050.**




We could make impressive progress in the building sector in the coming years.

However, we talk much less about the practical problems that can arise if the political will is there to get on with the task. What impact, for example, will it have on an already overstretched construction industry to embark on such a large-scale, long-term renovation programme? Will we

have the manpower and skills to carry out such a large task? What will be the impact of mass renovation on property prices? And what challenges can ordinary people who live in these properties - or who do not yet own their own property - expect?

In this paper, we explore the short-term political-economic-social risks of the green transition, particularly those linked to the decarbonisation of the building sector, and present possible solutions to address them.

We will seek answers to three practical questions:

-  Who will renovate 100,000 properties per year?
-  How will this programme be funded and executed?
-  How will this programme affect the lives of ordinary people?

2. THE EMISSION-REDUCTION POTENTIAL OF THE BUILDING SECTOR AND RELATED CHALLENGES

In Hungary, residential buildings account for 36 percent of carbon emissions and 32 percent of the country’s total energy use. As cost-effective emission reduction technologies are already available in sufficient quantities, this is a sector where significant results can be achieved in the short term already. Therefore, the energy renovation of our buildings must be made a priority on the road to decarbonisation. Deep renovations are investments that make a building’s energy use at least 60% more efficient. More than 100,000 homes will need to be renovated every year if all homes are to undergo deep energy renovation by 2050. However, while implementing such a large-scale programme, we will face a number of practical obstacles:

01 RISING PRICES FOR BUILDING MATERIALS AND LABOUR SHORTAGES

The price of building materials has been rising for years. Compared to 2019, for example, the price of some insulation materials has increased by 200 percent, that of timber by

100 percent and the price of radiators by 40 percent. The Russian invasion of Ukraine has further increased the energy crisis, which has a strong impact on this sector as well. By the beginning of 2022, producer prices in the construction sector had increased by 20.6 percent compared to the same period in 2021. A major public renovation programme would significantly increase demand for construction products, leading to further price hikes.

Labour prices in the construction sector are rising dramatically as well. Compared to the same period in 2015, labour prices were 62.3 percent higher in the fourth quarter of 2020. This is partly linked to labour shortages. Roughly 4,000 people finish vocational training every year, while 11,000, nearly three times as many are needed every year. There is a growing shortage of skilled bricklayers, window fitters and insulators, which is adding to the upward pressure on prices.

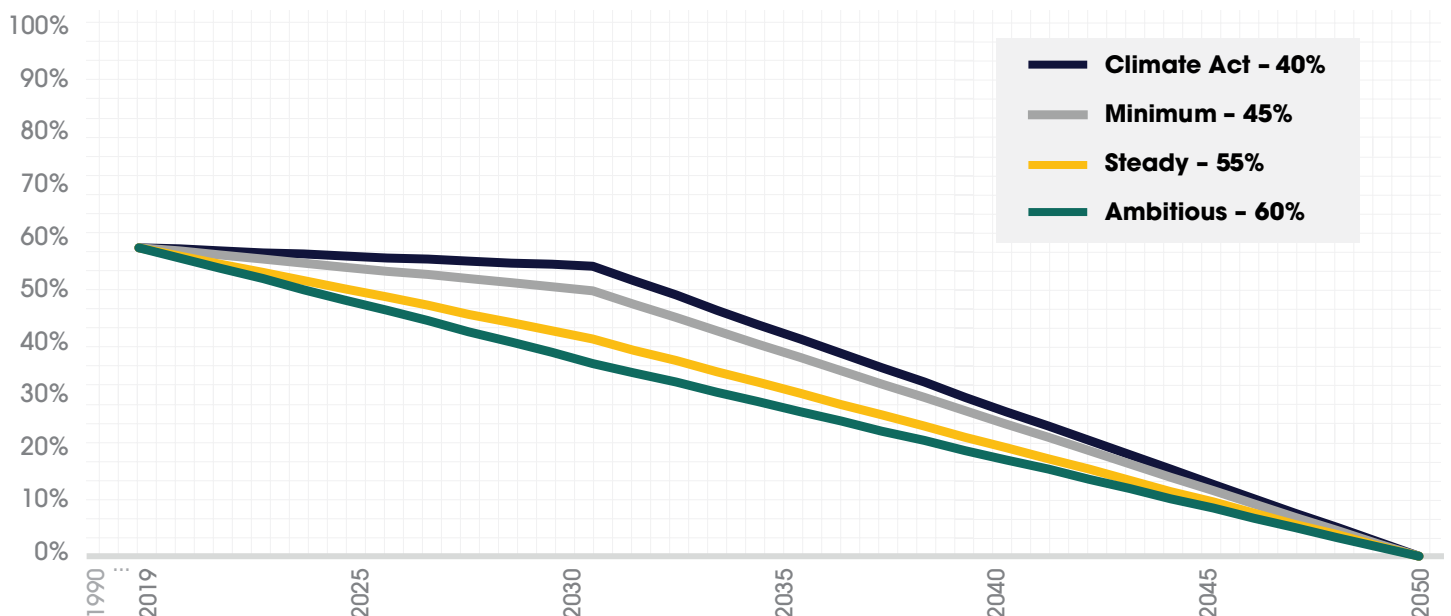


Chart 1: Potential emissions reduction trajectories until 2030 (million t CO₂eq).
Source: Equilibrium Institute - How do we achieve climate neutrality?

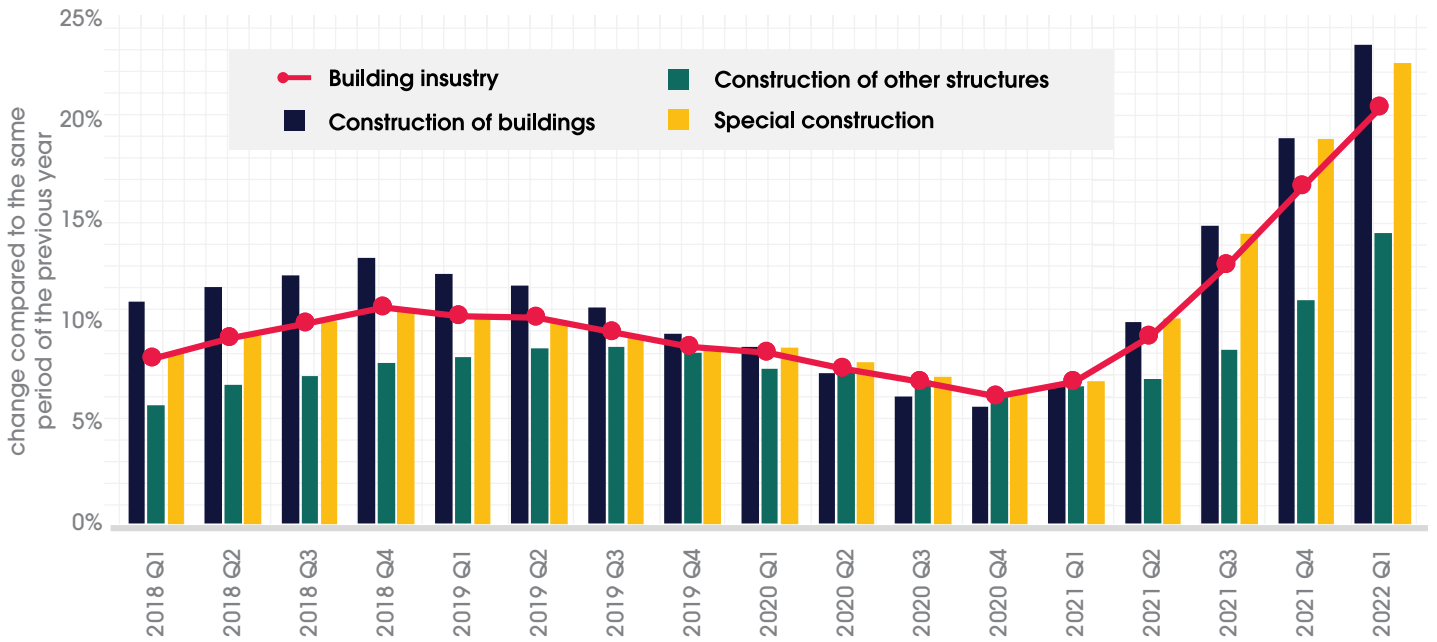


Chart 2: Producer price indices of the construction industry (quarterly, cumulated from the beginning of the year, same period of previous year = 100%). Source: Based on Stadat (https://www.ksh.hu/stadat_files/ara/hu/ara0061.html), own edit

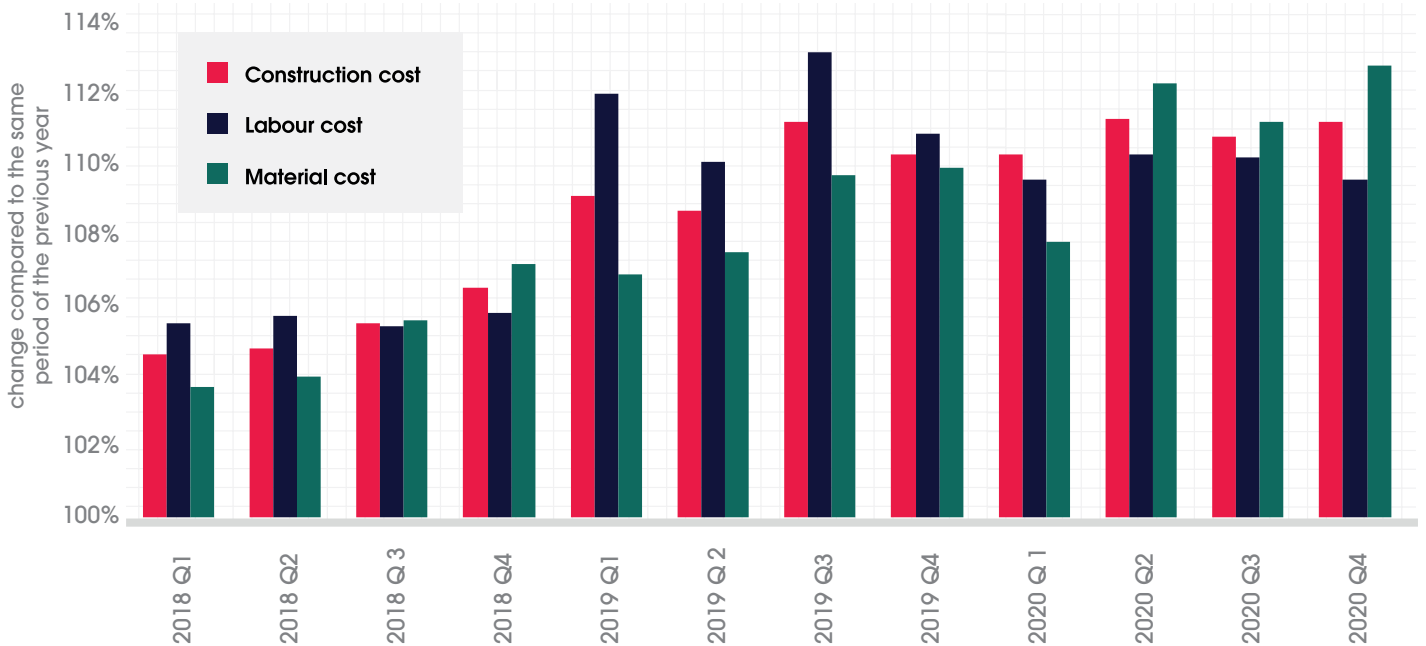


Chart 3: Change in construction costs (quarterly, cumulative from the beginning of the year, same period of the previous year = 100%) Source: <https://www.igylakunk.hu/blog/folytatodik-az-epitoanyagarak-emelkedese-iden-is> and based on www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_zrs002.html, own edit

02 THE CAPACITY CONSTRAINTS OF THE ELECTRICITY GRID

In parallel with the decarbonisation of buildings, we will increasingly rely on renewable energy sources such as solar panels. The integration of renewable energy sources will

require improvements to the electricity grid to ensure that the gradual shift away from fossil fuels does not cause problems in energy supply. If the deep renovation of 100,000 dwellings per year really takes off, **the demand for household scale small power plants will further increase**, which could also generate excessive loads on the electricity grid.

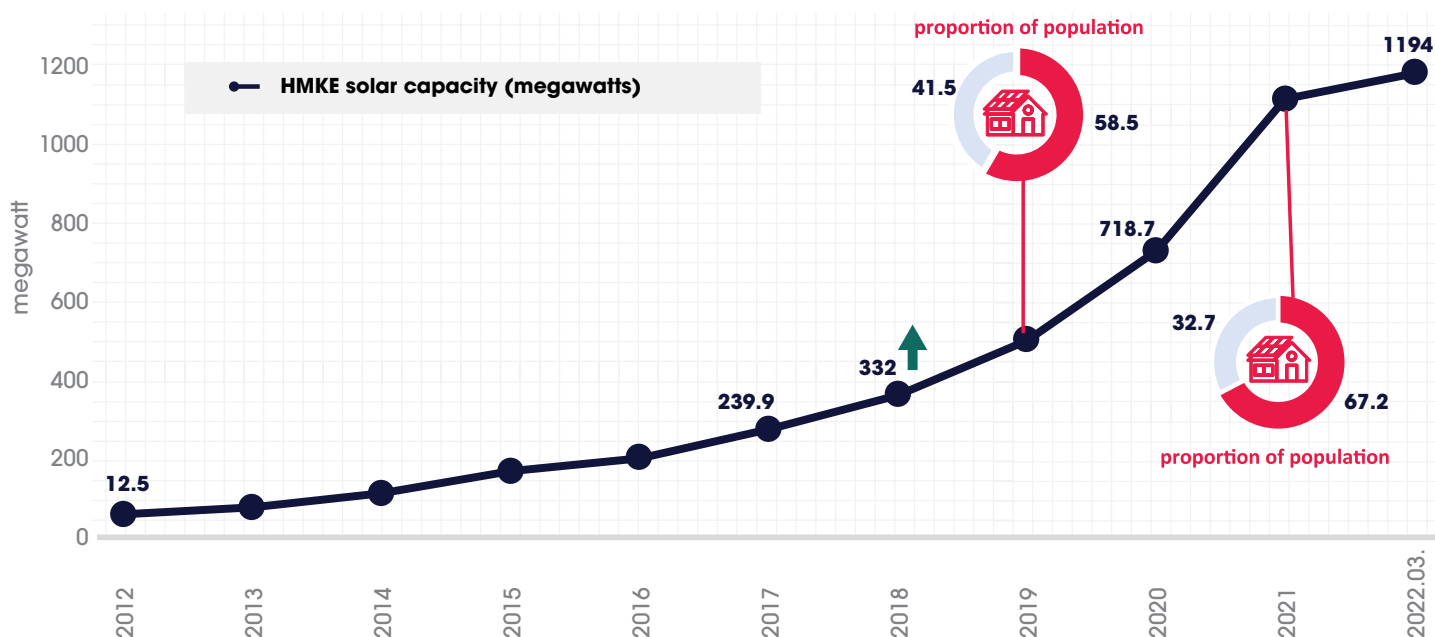


Chart 4: The expansion of household-scale small solar power plants in Hungary. Based on <http://www.mekh.hu/nem-engedelykoteles-kiseromuvek-es-hazartasi-meretu-kiseromuvek-adatai>, own edit

03 SOCIAL CHALLENGES

Around 3 million people live in housing poverty in Hungary. It must be made a priority that the housing renovation programme should not in any way exacerbate this problem.

Energy poverty is one of the most difficult problems to solve when reducing emissions from buildings. Heating is responsible for a significant share of emissions. Removing

coal and lignite from individual heating while realizing the deep renovation of buildings could have a major social impact, as these solid fuels are currently used mainly by the poorest. In addition, **the renovation of 100,000 buildings a year will raise property prices as well, which could also cause hardship for the poor.** It cannot be our aim to make the poor poorer, to make them the losers of climate protection. Care must be taken to ensure that the cost of the measures does not overburden the most vulnerable ones, the poorest ones.

3. THE EQUILIBRIUM INSTITUTE'S RECOMMENDATIONS

I 3.1. HOW TO HANDLE THE INCREASING PRICE OF BUILDING MATERIALS AND ENGINEERING PRODUCTS

▶ LET'S INTRODUCE A CROSS ELECTORAL CYCLES BUILDING ENERGY EFFICIENCY PROGRAMME!

A long-term energy efficiency programme for buildings must be developed that spans government cycles, since we build our homes for decades and do not usually embark on major renovations every 3-4 years. **If both the public and the building industry know that it is possible and worthwhile to plan for the long term with subsidies and orders for housing renovation, demand can be better distributed over time, somewhat easing the pressure on the market.** Therefore, it is necessary to assess exactly how many buildings in each property category need to be renovated - and to schedule the renovation on this basis.

Let's make it mandatory for all properties to have an energy performance certificate within 5 years!

▶ LET'S INTRODUCE A MANDATORY ENERGY CERTIFICATE FOR ALL BUILDINGS!

Let's make it mandatory for all properties to have an energy performance certificate within 5 years! The assessment should be financed by the state, but the owners themselves should provide the network to support the implementation! Motivation can be increased by having the state finance the mandatory survey for a limited period only, after which it should be carried out at the owner's expense!

The energy performance certificate should serve as a so-called renovation passport, indicating a reasonable and efficient sequence of works to reduce energy consumption. In order to further increase the motivation of the population, the certificate should be a prerequisite for any future renovation subsidies!

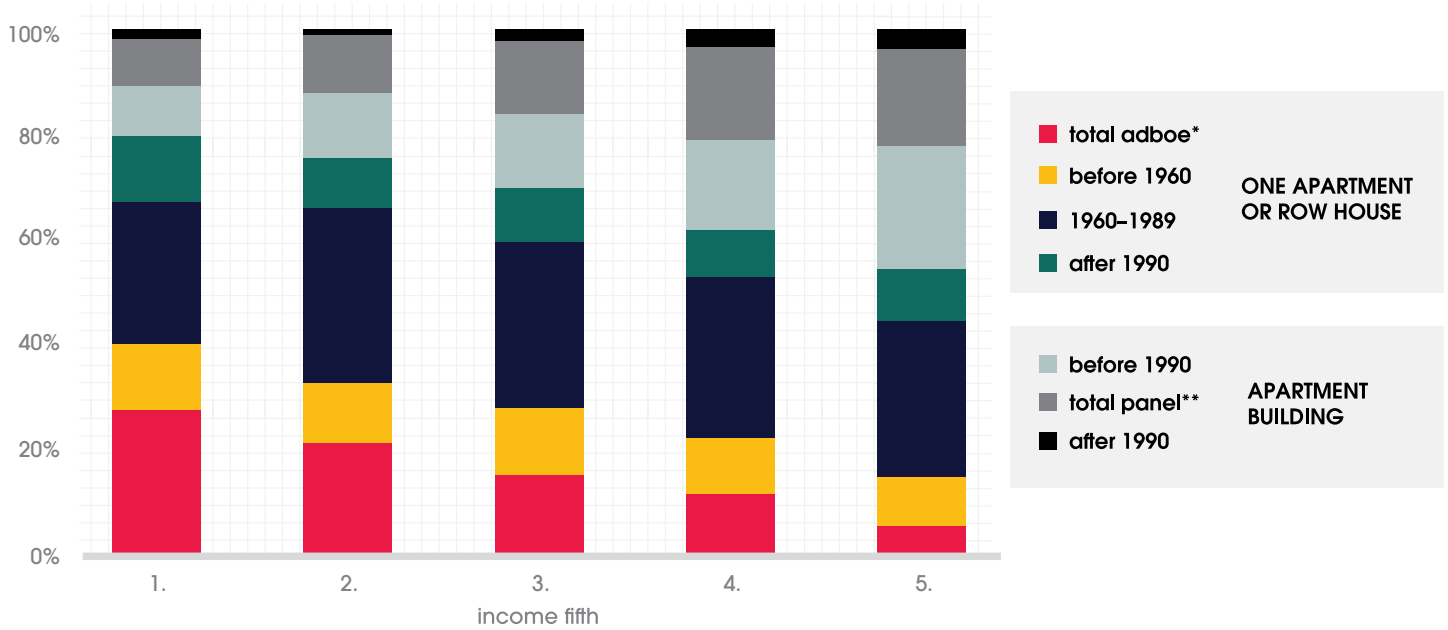


Chart 5: Distribution of households by income quintile and building type. Source: Habitat for Humanity Hungary, <https://epiteszforum.hu/felujitast-mindenkinek>

* All dwellings with adobe walls. All other categories exclude these buildings.

** All condominiums built with panel and other industrial technologies between 1945 and 1989. Other categories include these buildings are not included.

▶ THE HUNGARIAN CONSTRUCTION MANUFACTURING CAPACITY MUST BE INCREASED!

If operators know that in the long term it's in their interest to ramp up production capacity, increase their raw material orders or diversify their supply chains to ensure more secure supply, new market opportunities will open up for them. **If we look at a 30-year time horizon, it makes sense to invest in this sector.** There are basically two directions to follow, depending on economic policy intentions and partly on ideological values:

01 There is already an investment drive underway to increase the market share of domestic construction materials production. This incentivizing activity should be specifically focused on products for deep renovation, for example on companies producing insulation materials, windows and doors, building services equipment or products for the installation of renewable energy.

02 The second possible development direction is to consciously increase imports of products for building renovation by further strengthening external economic relations.

▶ ENERGY EFFICIENCY CONTRACTS FOR MULTIFAMILY BUILDINGS

A solution similar to the ESCO scheme typically used in the public sector should also be promoted for condominiums (energy service companies, or ESCO companies make investments that pay for themselves through energy savings: the ESCO company finances the energy renovation and the resulting cost savings are then shared between the energy consumer and the investor according to a pre-defined scheme.) The contract should be structured in such a way that **the ESCO is also the operator of the condominium after the investment.** This will ensure the quality of the investment, as the investor itself will have an interest in keeping operating costs down.

I 3.2. ALLEVIATING LABOUR SHORTAGE

▶ LET'S LINK THE REFORM OF VOCATIONAL TRAINING WITH THE GREEN TRANSITION!

Both the number of highly skilled and low-skilled construction workers should be increased. **The renewal of vocational training has to be linked with addressing the needs of the green transition.** The state should provide opportunities to learn more in-depth construction skills (e.g. engineering, installation of renewable energy systems). The transformation must start immediately, so that people with the skills needed to decarbonise the building sector can graduate from vocational schools in 3-4 years and from technical schools in 5-6 years.

Significant results can be achieved in the short term by involving people that are temporarily unemployed. The Equilibrium Institute has proposed an increase in jobseeker's allowance from 3 to 10 months in its policy proposal "*How to get work for all*". This time is long enough to learn construction skills for which there is currently a significant shortage. The impact of this measure could be felt within 1-2 years.

The renewal of vocational training has to be linked with addressing the needs of the green transition.

▶ LET'S MAKE IT EASIER FOR NON-EU CITIZENS TO WORK IN THE HUNGARIAN CONSTRUCTION INDUSTRY!

In 2021, the number of people employed in the construction sector reached 370,000, of which about 40,000 were foreign workers. There is already a need for 10,000 more foreign workers today and the growing demand is expected to continue in the coming years. To address the labour shortage in the industry, **let's make it easier for foreigners from third countries - non-EU nationals - to work in the construction industry in Hungary** by further simplifying the issuing of work permits! In addition, let's allow vocational schools in the construction industry to recruit students from outside the EU!

I 3.3. LET'S INCREASE THE CAPACITY OF THE ELECTRICITY GRID TO MEET THE NEEDS OF THE GREEN TRANSITION!

The more concentrated the deployment of new solar capacity is in a single location, the more likely it is to create difficult challenges for the grid.

The long-term building renovation programme makes the need for grid upgrades for household scale small power plants predictable, but this requires a preliminary determination of the expected annual capacity of new solar capacity. The capacity of the grid in different parts of the country, the upgrades needed and the cost of connecting solar capacity to the system should be assessed as soon as possible.

The more concentrated the deployment of new solar capacity is in a single location, the more likely it is to create difficult challenges for the grid. Thus, a deep retrofit schedule should be developed that allows for a relatively balanced spatial distribution of capacity installations. For

example, if the so-called “Kádár Cubes”, which are found in all parts of the country, are included in the first renewal phase, this will allow new solar capacity to be distributed evenly throughout the country.

I 3.4. SOCIAL CHALLENGES

▶ LET'S INCREASE THE SHARE OF RENTAL HOUSING STOCK TO 25 PERCENT BY 2040!

In Hungary, there is a shortage of both affordable social rental housing and more expensive market rental housing. The prevailing Hungarian pattern is that people live in privately owned properties, while the perception of rental housing tends to be negative and associated mainly with images of insecurity and vulnerability. A socially inclusive rental housing system could provide an appropriate solution to ensure that people on lower than average but fixed incomes have access to affordable, quality housing.

Following the Austrian example, **let us create special legal status for ‘public housing construction’ or ‘public housing renovation’ companies in Hungary too!** These could, subject to a profit maximum, be granted preferential loans for renovation and construction work, and in the case of new construction, preferential access to state or municipal land. They would also have to meet energy requirements for new construction and renovation that are in line with the 2050 climate neutrality target.

A socially inclusive rental housing system could provide an appropriate solution to ensure that people on lower than average but fixed incomes have access to affordable, quality housing.

In addition to public rental housing, **we should also develop the social rental housing stock**, so that people on lower-than-average incomes can also be helped in solving their housing difficulties. In this way, we can reduce housing poverty while greening the housing stock. In Budapest, the share of rental housing is currently 5 percent - most of which is now in municipal rented housing -, and around 3 percent in other cities. This number should be increased to 25 percent by 2040.

▶ RESTRICT AIRBNB TO CONSOLIDATE HOUSING PRICES

According to real estate experts, **the upward impact of Airbnb on real estate prices is clear.** Many properties that were previously rented out as sublets are now rented out to tourists on a short-term basis, and many of these properties are already being bought specifically for investment purposes.

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Several major European cities (including Paris, Vienna, Berlin, and Amsterdam) have therefore recently tried to counteract the negative impact of the platform on the real estate market through policy measures. **In Hungary too, Airbnb regulation should be amended to increase the associated tax burden for owners and to motivate landlords to return to the long-term rental market.** The additional tax revenues should be channelled to local government budgets!

▶ **LET'S INTRODUCE HIGHER TAXES TO RESTRICT INVESTMENT PROPERTY PURCHASES!**

Part of the rise in property prices is due to **an upsurge in investment property purchases**, especially given that a significant proportion of investment property purchases do not appear in the long-term rental market, but enrich the supply of the short-term, more profitable market. Investment property purchases should be curbed in order to mitigate the upward effect on prices. **Increase the property acquisition tax from 4 percent to 10 percent in all cases where the buyer already owns a home!** If the property purchase is for the purpose of entering the rental housing scheme, the benefits therein should be designed to compensate the investor for paying the increased property acquisition tax.

In 2015, 560,000 of the 4,42 million dwellings were unoccupied, and trends since then suggest that the vacancy rate is still around 12 percent of the total housing stock. **Let's offer favourable conditions for the inclusion of housing in the rental housing programme.** In addition, let's tax vacant housing as a counter-incentive.

▶ **LET'S REFORM THE SOCIAL FUEL SUBSIDY SYSTEM TO PROTECT THE POOREST!**

Moving away from polluting fuels can only be done effectively and fairly if we offer affordable alternatives to the poorest. Therefore, **the upper limit of 5,000 inhabitants per municipality for social fuel subsidies should be abolished!** The social heating subsidy is needed in municipalities with more than 5,000 inhabitants, and even in larger cities and the capital.

Today, the social fuel subsidy is not available for the transport of fuel, so, simply put, municipalities prefer

the type of fuel that fits most on a lorry – mostly lignite and coal. **These two fuels should be excluded from the scope of subsidised fuels.**

All municipalities concerned should maintain **storage facilities for drying wood**, as families in need typically cannot afford to store firewood for the two years required to make it suitable for good combustion: this would allow the municipality to provide people with sustainably stored firewood from sustainable forestry.

▶ **LET'S ENCOURAGE ENGINEERING RENOVATIONS!**

Providing sustainable fuel is not enough - **an aid programme is needed to encourage the installation of efficient boilers and stoves!** To reach the poorest, schemes should also be developed whereby energy efficiency investments do not require any co-financing on the consumer side. In the long term, the promotion of electricity heating, in particular through the installation of solar panels could be even more effective than subsidies for biomass heating.

When designing support schemes, we must bear in mind the correct logical sequence for efficient energy renovation.

When designing support schemes, we must bear in mind the correct logical sequence for efficient energy renovation. For buildings without thermal insulation and energy-efficient windows, solar system subsidies should only be applied for if they are preceded by thermal insulation and window replacement – which could be carried out under the same scheme.

I 3.5. REDUCING BUREAUCRATIC COSTS AND INCREASING INCENTIVES FOR RENOVATION

▶ ENCOURAGE AND REWARD BUILDING RENOVATIONS THROUGH DETAILED COMMUNICATION!

A subsidy programme to renovate up to 100,000 homes a year will not be effective if homeowners feel that the effort is greater than the benefits. Therefore, **citizens must first be informed in a detailed and clear way about why the changes are needed**, explaining the climate and air quality objectives. But more importantly, **they need to see why the renovation is in their personal interest**. In order to encourage renovation, a concrete deadline should be set, further in the future, after which the scheme will no longer be available, or will not be available on the same favourable terms as when the scheme was launched.

▶ ONE-STOP-SHOPS FOR ENERGY RENOVATION!

To decrease the administrative costs of renovations, there are already one-stop-shop networks of advisers, where property owners wishing to renovate can request and receive full advice from trained professionals. To reduce information asymmetry and high levels of mistrust and unpredictability, the state should support this initiative. Let's help to increase the number of offices and the range of services provided free of charge by subsidising operating costs. In particular, it is important that the State should help to develop a system whereby accredited contractors undertake to carry out a given renovation work in a given quality and within a given deadline. This would help to avoid unnecessary costs resulting from poor quality work.

THE EQUILIBRIUM INSTITUTE'S RECOMMENDATIONS

AREA	RECOMMENDATION
INCREASE PRICES OF BUILDING MATERIALS AND ENGINEERING PRODUCTS	Let's have a predictable, planable aid policy: first subsidise the renovation of the Kádár cubes or panels!
	Help domestic companies to increase their market share of products for building energy investments.
	Allow ESCO companies to participate in the renovation of condominiums to increase cost efficiency!
LABOUR SHORTAGES	Renew vocational education by linking the tackling of labour market difficulties with the implementation of the green transition.
	During the extended 10-month jobseeker's allowance, explicitly support retraining for skills gaps in the construction sector.
	Let's make it easier for professionals from outside the EU to work.
CAPACITY OF THE ELECTRIC NETWORK	Assess the capacity of the grid in different parts of the country, what improvements are needed, and the cost of connecting solar capacity to the system.

TO ADDRESS THE SHORT-TERM CHALLENGES OF THE GREEN TRANSITION IN THE BUILDINGS SECTOR

AREA	RECOMMENDATION
SOCIAL CHALLENGES	Launch a public and social rental housing programme! Increase the rental housing stock to 25% by 2040!
	Bring empty homes back into the rental or supply market through discounts and punitive taxes!
	Discourage the purchase of residential property for investment purposes: increase the property acquisition tax to 10% if the buyer already owns a home! If the property is bought to enter a rental housing scheme, „compensate” the investor with discounts!
	Remove the 5,000 cap on the number of people eligible for social fuel subsidies!
	Allow social fuel subsidies to be used for transport!
	Support the purchase of efficient stoves and boilers for solid fuel heating!
	Support the installation of solar panels and electricity heating where possible!
BUREAUCRATIC COSTS AND LOW PROFITABILITY	Set a date in the future when subsidies will no longer be available, or only in less advantageous schemes!
	Develop a network of one-stop-shop advisers to overcome fears about renovation and reduce unnecessary costs!

ABOUT US

The Equilibrium Institute is Hungary's largest independent, future-oriented policy think tank.

In line with the vision of Hungary's future presented in our publication entitled Hungary 2030, the Equilibrium Institute works on creating a smart and environmentally cleaner nation rooted in a strong community. To this end, we write widely appealing and practical policy proposals that serve the development of our country, and we discuss these jointly with the best domestic and international experts.

Our goal is to ensure that the current and future political, economic, and cultural decision-makers learn about our recommendations, come to agree with them and implement them.

The staff members of the Equilibrium Institute and the members of its Advisory Board are renowned experts in Hungary who are considered to be among the best researchers and analysts in their respective fields. The work of the Institute is helped by more than 30 experts, including economists, sociologists, political scientists, lawyers, urbanists, and climate researchers.

OUR EXPERTS



TAMÁS BOROS

Executive director and co-founder of the Equilibrium Institute

He serves as a member of the Scientific Council of a leading European think tank, the Brussels-based Foundation for European Progressive Studies (FEPS). He is the co-founder and co-owner of Policy Solutions, a consultancy and research institute. He is a recurring guest on a variety of political talk shows and often comments about public affairs for leading international media. He previously worked for the European Commission and the Hungarian Ministry of Foreign Affairs as an expert on communication and EU affairs. His research focuses on Hungarian and EU political communication and populism.



GÁBOR FILIPPOV

Director of Research

Previously he worked as an expert advisor in the Hungarian National Assembly and then as a political analyst and senior analyst at the Hungarian Progressive Institute. His analyses and op-eds have been published by numerous domestic and international media outlets, and he is frequently invited to talk about politics on television and radio shows. His research focuses on the European and the Hungarian far-right, on the histories of anti-Semitism and Islamophobia and their present-day manifestations, as well as the workings of contemporary authoritarian regimes.



DÓRA CSERNUS

Senior Climate and Environmental Policy Expert

As an expert in environmental issues, she has worked for the Ministry of Environment and Water, the Office of the Parliamentary Commissioner for Future Generations and the Ministry of Public Administration and Justice, representing the Hungarian position in different EU, UN, and OECD fora. She later worked as Director for International Policy Development at Klímapolitika Research and Consultancy Ltd, and as an independent expert in climate and environmental issues. Her main focus is on climate policy, air-quality control and water policy.



ZSOLT BECSEY

Senior Economist

Zsolt Becsey started his career as an economic planner at the Ministry for National Economy, then worked as an economic analyst and later as a modeller at the Central Bank of Hungary. His areas of interest are industrial policy, input-output analysis, macroeconomics, SME policy, and competitiveness.



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