

Encouraging deep renovation of residential buildings is necessary and worthwhile

Summary of the Report 'Hungarian Renovation Wave' prepared by the Hungarian Energy Efficiency Institute

The *Hungarian Institute of Energy Efficiency (MEHI)* has prepared a study entitled *Hungarian Renovation Wave* on the various benefits of a largescale building renovation program in Hungary. The study is based on a representative residential survey that examined the willingness of Hungarian homeowners to renovate their homes and their sensitivity to the introduction of certain financial incentive measures.

There is now a broad consensus among researchers that energy efficiency is one of the most cost-effective means of achieving climate goals, with many positive spill-over effects in addition to energy savings and emission reductions. Without deep renovations in residential buildings with the greatest potential for energy savings, it is not realistic to achieve energy consumption and emission reduction targets, carbon neutrality by 2050. At the same time, this is the area where no breakthrough has been achieved in recent years, either at EU level or in Hungary. The aim of the study is to assess the magnitude of residential demand for an energy retrofit support program and quantify the benefits related to such a program.

In November 2020, MEHI carried out a representative population survey with the following research questions: 1) which energy refurbishments owners have made on their residential properties over the past five years; 2) what investments they plan to make in the next 5-year period; 3) how they plan to finance it; 4) what motivates them most; 5) and how much more investment would be implemented if certain support and incentive instruments were available.

Summarizing the results, MEHI saw that the number of building energy retrofits has increased significantly in recent years: 57% of respondents have carried out some form of energy efficiency upgrade in the last five years. However, renovations are mostly not done for energy efficiency purposes. Since individual, partial renovations dominate and are typically carried out without a technical or energy plan, the resulting energy savings are not significant.

Renovation plans based on the survey indicate that a large-scale residential energy efficiency market is likely to emerge in the next five years, with 1.4 million homeowners planning some kind of energy modernization in their homes, generating an investment volume of nearly HUF 3,000 billion.



The study examined six forms of incentive measures (VAT rebates, loans and one-stop-shops). With the data retrieved from the survey, the study 1) assessed the extent to which renovators would expand their energy efficiency upgrades, 2) calculated the public finance outcome of these subsidies, and 3) quantified their impact on employment and the amount of energy and CO₂ savings they can achieve.

According to the survey, the most popular form of a possible support scheme, the 40% non-refundable grant, could encourage the energy renovation of another nearly 1 million homes, with an investment value of more than HUF 1,200 billion, leading to about 30 000 new jobs and 7,5 PJ energy saving per year. While financing deep renovations can be a substantial financial burden for the state, on the other, it entails multiple benefits due to the wider spill-over effects resulting from more ambitious energy efficiency measures.

Based on the results of the survey, the public finance and employment effects of the incentives are clearly positive, budget revenues exceed the volume of public expenditure for some forms of incentives, and investments generated by the support schemes lead to significant energy savings and CO₂ reductions. In each case, however, if energy efficiency criteria appear as a condition for deeper renovation, much wider positive effects can be realized in addition to energy savings and less CO₂ emissions, such as households' improved comfort and well-being, reduction of health issues, and increase in productivity.

Considering the significant residential demand for energy renovations, it would be important to carry out renovations in a way that the associated energy saving potential can be exploited as much as possible. To do so, it would be necessary to introduce a predictable, long-term financial support scheme with a non-refundable grant element, and conditions set in such a way as to encourage deep renovations.

[Read more about the study on MEHI's page \(in Hungarian\)](#)

16/02/2021

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