

POLICY PROPOSAL - 2023 No.6

HOW SHOULD WE INCREASE THE ENERGY SECURITY OF HUNGARIAN MUNICIPALITIES?

The Equilibrium Institute's
policy proposals to strengthen
the resilience of local governments



Equilibrium
Institute

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1. WHAT'S THE PROBLEM?

By the end of 2022, municipalities in Hungary were facing a crisis beyond compare, **resulting from the persistent rise in energy prices, the prolonged inflation, and the international market uncertainties caused by the Russian aggression**. From one month to the next, Hungarian municipalities encountered seemingly unmanageable extra costs, which not only put their budgets at risk, but also the provision of the most basic public services for which they were responsible. As the situation has influenced everyone, irrespective of their worldview or party affiliation, it has become clear that **finding a solution would also require broad cooperation** and joint professional work, free of political interests.

At the initiative of the Hungarian Association of Local Governments, the Hungarian National Association of Local Authorities and the Association of Budapest Local Governments, the Equilibrium Institute, Hungary's independent think tank, convened a series of professional consultations under the name of National Energy Roundtable, in order to **develop common solutions to common challenges**, drawing on the knowledge of the most important professional and advocacy groups, and relevant market players. The Roundtable resulted in a comprehensive package of policy proposals which led to the implementation of several energy measures reducing the burden on municipalities.

Seeing the potential in further cooperation, **the Equilibrium Institute has decided to continue working with municipalities in the field of energy**. In autumn 2023, the Institute is visiting fifteen county seats to discuss key energy challenges with decision-makers from local and surrounding municipalities. As a forward-thinking and solution-oriented organisation, the Equilibrium Institute would like to focus on solutions, without debating the importance of discussing problems. To this end, on the one hand, the colleagues of the Institute have developed the set of proposals below, which they will discuss with local decision-makers at each location. On the other hand, the Equilibrium Institute has requested the input of practice-oriented external experts, who will accompany the Institute to each site and provide their expertise in presenting concrete solutions for reducing energy use and shifting away from fossil fuels.

The aim of the Equilibrium Institute is to help municipalities in **tackling the most pressing problems related to this crisis with concrete, tangible policy and practical proposals**, which pave the way towards the long-term resilience of municipalities.



2. REDUCING THE BURDEN ON LOCAL GOVERNMENTS IN THE SHORT-TERM

I 2.1. HEATING AND COOLING

▶ **LET'S ENCOURAGE THE IMPLEMENTATION OF ENERGY EFFICIENCY UPGRADES, IN ORDER TO REDUCE ENERGY USE FOR HEATING AND COOLING!**

When subsidising heat production, providing sustainable fuels is not enough – efficient insulation, boilers, stoves, and community solutions are also needed.

▶ To ensure these, **let's introduce a targeted energy modernisation subsidy scheme for both municipalities and the residential sector!**

▶ Let's launch a subsidy scheme based on community cooperation, to enable the use of biomass! **Let's subsidise the creation of small-town community heating plants and community timber storages!**

▶ To reach the poorest, subsidies should also **include schemes where energy efficiency investments do not require any co-financing on the consumer side.**

▶ Also, for the sake of reaching the poorest, **the application system must be simplified.**

The energy efficiency retrofitting of buildings also reduces the energy demand for cooling. At consumption points where people work also from spring to autumn, well-insulated buildings, and efficient, well-maintained air conditioning systems, along with appropriate solar control glass and external shading, can result in significant energy savings.


I 2.2. STREET LIGHTING


▶ **LET'S SWITCH TO ADJUSTABLE AND PROGRAMMABLE SMART LED SYSTEMS EVERYWHERE!**

In many Hungarian municipalities, LED systems have still not been deployed, even though, from a municipal point of view, it is the most energy-efficient solution in terms of electricity consumption.

In Hungary, only 20% of the light fixtures used for public lighting purposes operate using LED technology, and approximately 5% of these fixtures are capable of light intensity adjustment. The latter is important because it can significantly reduce light output in a manner imperceptible or barely perceptible to the human eye, thereby fulfilling the public duty of public lighting and reducing the electrical energy consumed at the same time.

About half of the lighting fixtures operating with LED technology were installed between 2010 and 2016, which means their technological standards may be considered outdated and it is therefore advisable to verify these fixtures as well.

 **All municipalities should switch to adjustable and programmable LED systems for street lighting.**

 **Let's review the LED systems installed in the early 2010s to leverage the benefits of technological advancements achieved since then!**

 **PRE-FINANCING SHOULD BE AVAILABLE FOR THE DEPLOYMENT OF LED LIGHTING.**

The financing of the transition to LED systems should be standardised among municipalities. Increasing the role of the state is one direction, while another possibility is to

 **cover the financing through the energy savings achieved by the investment, alongside financing from the companies carrying out the investment.**



3. INSTITUTIONAL CONDITIONS FOR THE LONG-TERM RESILIENCE OF MUNICIPALITIES

▶ FULL-TIME ENERGY EXPERTS SHOULD BE ALLOCATED TO EVERY MAJOR MUNICIPALITY.

Currently, many municipalities lack the professional expertise necessary to navigate the continuously evolving energy landscape, prepare for changes, negotiate with service providers, and expertly execute their own energy investments. While the current National Energy Expert Network is a step in the right direction, in its current form, it is not adequately equipped to fulfil its intended purpose.

▶ Beyond a certain municipality size, **an urban energy expert position or an organisational unit responsible for energy should be mandatory.** This would enable local professional support in energy efficiency matters for both the municipal institutional network and the population. (With financial support from the government.)

▶ To alleviate the shortage of experts, there should be opportunities for postgraduate training – ideally **with partial state-supported financing – for municipal officials to participate in energy management engineering or specialist training.**

▶ Let's support the establishment of a **national energy expert database**, from which municipalities lacking a full-time energy expert can hire or contract one on an as-needed or temporary basis!

▶ Let's make it possible for **employees who can already significantly influence energy consumption** (technical staff) and those responsible for energy procurement (procurement managers) **to participate in professional training** as soon as possible!

▶ LET'S ESTABLISH A REGULATED LEGISLATIVE ENVIRONMENT FOR ENERGY COMMUNITIES AND SUPPORT DECENTRALISED ENERGY PRODUCTION IN THE CASE OF MUNICIPALITIES AS WELL!


The widespread deployment of energy communities would be particularly important in the current energy crisis. In energy communities, consumers can generate a portion of their heating and electrical energy, which they then share within the community. This offers a good chance for reducing energy costs, strengthening the diversification of energy sources, better utilising financial resources, and partially addressing issues such as feed-in and balancing. One of the goals of the National Energy Strategy is to have at least one energy community in each of Hungary's 197 districts by 2030, but it would be a significant breakthrough if up to a thousand energy communities were formed at the local level in the coming years. To this end, the Association of Hungarian Energy Communities and Resilience Service Providers was established in 2022. Although there is still a lack of precise legal framework for operating energy communities, **experimental projects are already underway where municipalities act as energy communities or as members of such communities.**

▶ **Municipalities should form energy communities to take advantage of the potential of different energy production and consumption patterns.**

▶ LET'S ENCOURAGE THE CREATION OF LOCAL ENERGY COOPERATIVES!


One of the most frequently cited obstacles to the energy independence for smaller municipalities is that it is precisely in these typically not very wealthy municipalities

that the cost-effectiveness of energy modernisation is the worst – the investment itself is too small, yet technically complex and difficult to implement. To address this issue, the tendering bodies in many European countries favour local energy cooperatives, which significantly increase the accessibility and efficiency of funding, while also enabling the participation of local small and medium-sized enterprises in the most disadvantaged regions.

 **Let's encourage the creation of local energy cooperatives by launching targeted calls for proposals!**

 **LET'S ENCOURAGE THE ADOPTION OF SITE-SPECIFIC ALTERNATIVES TO GAS FOR MUNICIPAL INSTITUTIONS!**

When it comes to our energy security, reducing the use of natural gas is one of the most important tasks in the next decade, as illustrated by the current situation.

 **Site-specific alternatives for replacing imported natural gas should be assessed at the local level (geothermal energy for district heating, sustainable biomass, the potential for industrial waste heat and sewage heat utilisation).**



4. FACILITATING THE SPREAD OF RENEWABLE ENERGY SOURCES

▶ LET'S FACILITATE THE INSTALLATION OF SOLAR PANELS – LET'S BRING MONUMENT PROTECTION AND TOWNSCAPE REGULATIONS IN LINE WITH ENERGY CONSIDERATIONS!

The current legislation on monument protection and townscape leaves too little room for energy upgrades (most notably for the installation of solar panels). Foreign examples (such as the Vatican) also show that the installation of solar panels does not necessarily infringe on the protection of cultural heritage – particularly when panels are installed in locations (such as rooftops) that can be seen from a helicopter at most.

▶ **Keeping the protection of our built heritage in mind, let's review the installation permit procedure and make it more flexible!**

▶ **Concurrently, the state of municipal institutions' roofs and their suitability for solar panel installation should be assessed.**

▶ **In the case of solar panel systems already installed and planned for annual net metering, no changes to the accounting system should be allowed for ten years after installation.**

▶ LET'S EXAMINE THE POSSIBILITIES OF UTILISING GEOTHERMAL ENERGY!

Municipalities that already had geothermal networks were able to respond much more flexibly to the surge in energy prices. In the future, it is worth paying special attention to utilising this opportunity in as many municipalities and as diversely as possible. In municipalities where thermal baths already exist, it is advisable to use the water for multiple purposes.

▶ **Municipalities should explore the possibility of the multifunctional, cascade utilisation of the water owned by the municipality, that is primarily used for medical purposes.**

5. ENCOURAGING INVESTMENT IN ENERGY EFFICIENCY

▶ **LET'S ASSESS CONSUMPTION POINTS – EXCEL SPREADSHEETS SUITABLE FOR DATA COLLECTION SHOULD BE MADE AVAILABLE TO ALL MUNICIPALITIES!**

Responsible planning requires data about consumption points – reliable data would enable, for example, freeing up excess capacities and operating control mechanisms. Data collection can be done through more sophisticated software or GIS (Geographic Information System), but a simple Excel spreadsheet can also be of great help.

▶ As a first step, **let's assess energy consumption points in every municipality!** For this purpose, an Excel spreadsheet is a suitable first step, requiring no additional resources. If there is a municipality already using one, they should share it with others, as an Excel spreadsheet template can already be of tremendous help for those starting the data collection without any prior experience, and lacking spreadsheet expertise.

▶ **LET'S INTRODUCE CONSUMPTION MONITORING!**

To reduce energy expenses, let's continuously monitor heat and electricity consumption! This can be done manually or automatically. This may result in the identification of certain anomalies: surges in consumption, discrepancies with similar institutions, unjustified consumption. This allows us to identify the points where intervention for energy savings is urgently needed.

▶ **LET'S CONDUCT ENERGY AUDITS, AND MAKE PRE-FINANCING TO THIS END POSSIBLE!**

A more comprehensive analysis than consumption monitoring allows for the identification of additional points of intervention, broken down by energy type, building, etc. An energy audit also formulates recommendations concerning necessary investments. This is needed as soon as possible, so let's support municipalities with pre-financing options!

▶ **LET'S BE OPEN TO ESCO-TYPE FINANCING!**

In the case of buildings, the essence of this financing concept is that the ESCO company finances the energy renovation, and then the cost savings resulting from energy savings are allocated between the energy consumer and the investor according to a predetermined scheme. The main advantage of this solution is that it does not require initial capital from the owner, and that the ESCO company assumes both the risk and the arrangement of the renovation work.

▶ Once a more precise legal framework for ESCO-type financing has been developed by the state, **municipalities should take advantage of the benefits of such a scheme.**



6. ALLEVIATING ENERGY POVERTY

▶ LET'S ESTABLISH A MUNICIPAL SOCIAL CRISIS FUND WITH A SPECIAL ASSESSMENT FOR THOSE AFFECTED BY ENERGY POVERTY!

We need to prepare for the possibility that energy crises may become more frequent in the future, placing the greatest direct burden on those affected by energy poverty. Particular attention should be given to them throughout the development of long-term municipal strategies, and targeted policy instruments should be implemented to prevent the emergence of unmanageable crisis situations.

▶ **The state should support municipalities with dedicated resources to set up a social crisis fund aimed at providing predictable assistance to those living in energy poverty.**

▶ **Let's increase the normative social subsidy for periods of crises, so that we can supplement it with a part specifically for energy poverty!**

▶ **When announcing housing renovation grant schemes, special consideration (such as higher subsidy intensity) should be given to those affected by energy poverty.**

▶ **Let's create a municipal firewood storage program to ensure that those living in energy poverty have access to adequate quality firewood!**

THE EQUILIBRIUM INSTITUTE'S POLICY PROPOSALS

AREA	PROPOSAL
REDUCING THE BURDEN ON LOCAL GOVERNMENTS IN THE SHORT-TERM	<ul style="list-style-type: none">Let's encourage the implementation of energy efficiency upgrades, in order to reduce energy use for heating and cooling!Let's switch to adjustable and programmable smart LED systems everywhere!Pre-financing should be available for the deployment of LED lighting.
INSTITUTIONAL CONDITIONS FOR THE LONG-TERM RESILIENCE OF MUNICIPALITIES	<ul style="list-style-type: none">Full-time energy experts should be allocated to every major municipality.Let's establish a regulated legislative environment for energy communities and support decentralised energy production in the case of municipalities as well!Let's encourage the creation of local energy cooperatives!Let's encourage the adoption of site-specific alternatives to gas for municipal institutions!



TO STRENGTHEN THE RESILIENCE OF LOCAL GOVERNMENTS

AREA

PROPOSAL

FACILITATING THE SPREAD OF RENEWABLE ENERGY SOURCES

Let's facilitate the installation of solar panels - let's bring monument protection and townscape regulations in line with energy considerations!

Let's examine the possibilities of utilising geothermal energy!

ENCOURAGING INVESTMENT IN ENERGY EFFICIENCY

Let's assess consumption points! - Excel spreadsheets suitable for data collection should be made available to all municipalities.

Let's introduce consumption monitoring!

Let's conduct energy audits, and make pre-financing to this end possible!

Let's be open to ESCO-type financing!

ALLEVIATING ENERGY POVERTY

Let's establish a municipal social crisis fund with a special assessment for those affected by energy poverty!

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

Tamás Boros is the executive director and co-founder of the Equilibrium Institute. He was 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.

DÓRA CSERNUS

Director for Climate and Environmental Policies

Dóra Csernus is the director for climate and environmental policies at the Equilibrium Institute. 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.



GÁBOR FILIPPOV

Director of Research

Gábor Filippov is the director of research at the Equilibrium Institute. 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.

ÁKOS KOZÁK

Director of Business Relations and co-founder

Ákos Kozák is the director of business relations and co-founder of the Equilibrium Institute. Previously, he served as the director of the GfK Hungária Market Research Institute for nearly 30 years. He is the former president of the Hungarian Marketing Association. Formerly, he was also a lecturer at the Budapest Business School and is currently an academic research fellow at the Cyber Economics Research Centre. He is the author or co-author of numerous academic studies on market research. He is the 2008 recipient of the Gábor Klauzál Award (the most prestigious Hungarian state award in the area of trade). He is an expert in futures research and consumer studies and holds a PhD in the sociology of consumption.



BERTRAM MAREK

Analyst

Bertram Marek is an analyst at the Equilibrium Institute. He holds a BA in Political Science from ELTE, an MA in Communication and Media Studies from BME and an MSc in Political Psychology from the University of Kent. He is currently pursuing his PhD at ELTE PPK. His research focuses on the relationship between nostalgia and system criticism. Previously, he worked as a junior analyst at NielsenIQ. He is a fellow of the Friedrich Ebert Stiftung.



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