

HUNGARY

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Background

National context, strategy, key measures and results in 2021

- **General strategy:** Alternative measures + EEOS
- **Baseline annual Final Energy Consumption¹** (averaged over 2016-2018): 18 256.69 ktoe/year (source: Eurostat)
- **Cumulative energy savings target for 2021-2030:** 8032 ktoe (source: [final updated NECP](#) section 2.2)
- **Expected total annual energy savings in 2030:** 146 ktoe/year (source: [final updated NECP](#) section 2.2)
- **Achieved new annual savings in 2021 (all measures)** = 121.8 ktoe/year in 2021 (Source: MEKH Report to Energy Ministry about energy savings 2021-2023, preliminary data)

% of new annual savings vs. baseline energy consumption = 0.8%
(source: [final updated NECP](#) section 2.2)

Slow start;

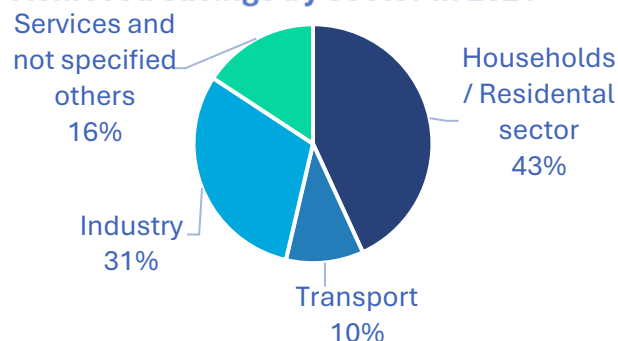
2021 was the first year of EEOS and the obligations of the first two years had to be fulfilled together. There was an economic downturn, and residential investments were also delayed due to the pandemic.

¹ For more details about trends in energy consumption and energy efficiency, see the country profiles by ODYSSEE-MURE: <https://www.odyssee-mure.eu/publications/efficiency-trends-policies-profiles>

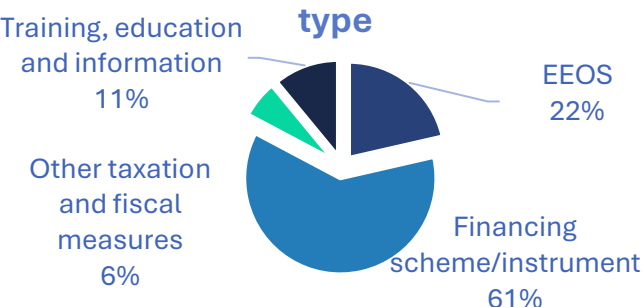


- **Distribution of annual savings achieved in 2021**

Achieved savings by sector in 2021



Achieved savings by policy type



Source: MEKH Report to Energy Ministry about energy savings 2021-2023, preliminary data

- **Top5 policy measures**

Name of the measure	Sector	Policy type	% savings in 2021
EEOS (EKR)	Industry, services, transport	EEOS	22%
Subsidies from funding programs (especially KEHOP, TOP, VEKOP, GINOP, ZINOP)	Industry, services, institutions	Financing scheme/instrument	18%
Corporate normative tax relief for energy efficiency measures	Industry, services, transport	Other taxation and fiscal measures	6%
Independent energy advisory service to SMEs with high energy consumption	Industry, services, transport	Training, education and information	11%
Home renovation support	Households	Financing scheme/instrument	43%

(Source: MEKH Report to Energy Ministry about energy savings 2021-2023, preliminary data)

Key points, changes vs. 2014-2020 and other recent developments

The most important change is that the Energy Efficiency Obligation Scheme was launched in 2021, alongside numerous alternative measures. Significantly greater annual energy savings are needed compared to previous years.

Focus on energy poverty

- **Energy poverty in the country:** According to the Government's policy, the result of the overhead protection system is that the proportion of energy poor is 3%, i.e. about 300 000 people. Such a household shall be deemed to have the following characteristics:
 - lack of adequate home heating in particularly vulnerable populations,
 - arrears on utility bills within particularly vulnerable populations,
 - particularly vulnerable populations living in dwellings with leaking roofs, damp walls, floors or foundations, or rotting window frames or floors, or
 - population below 60% of median equivalised income after social transfers (particularly vulnerable population) (source: final updated NECP, section 2.4.4)

- **Energy poverty target (Article 8(3) EED):** The aim is to reduce energy poverty, but there is no quantitative target yet.
- **Art.8 policy measures targeting energy poverty:**

Name of the measure	Policy type	savings
Home renovation support	Financing scheme/instrument	2191 TJ
Energy efficiency elements of the Hungarian Village Program (started in 2022)	Financing scheme/instrument	3 TJ in 2022

(Source: HEA Report to Energy Ministry about energy savings 2021-2023, preliminary data)

Based on the conditions of the “Home renovation support”, the program contributes to reducing energy poverty. Half of the renovation costs are covered by state support, and a loan with a preferential interest rate is also available.

The “Hungarian Village Program” aims to improve the energy efficiency of typically detached family houses in villages. Generally, these buildings were built in the 1960s and 70s and are not energy efficient enough.

Hungary has not reported the share of energy savings achieved among priority groups so far (i.e. in NECPR2023 and NECPR2025).

EEOS – EKR

(EKR = Hungarian abbreviation for energy efficiency obligation scheme)

History

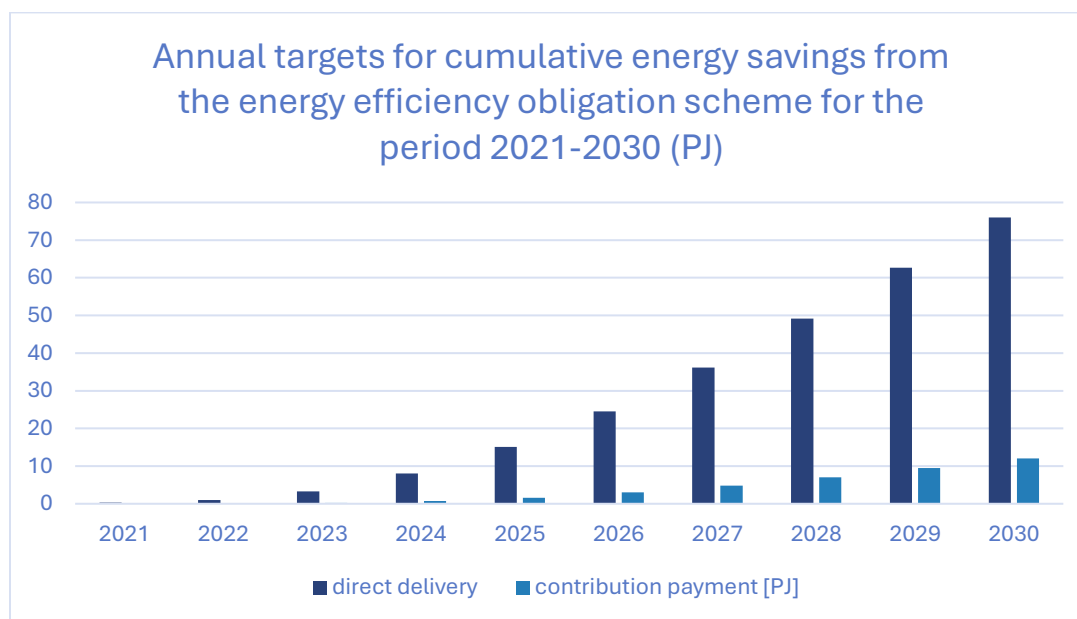
Starting year: 2021

Latest revision: 2025

Cumulative energy savings reported to Art.7 EED for 2014-2020: - (the EEOS started in 2021)

Current target: Cumulative energy savings target is 88 PJ (2102 ktoe) from the energy efficiency obligation scheme for the period 2021-2030

Expected contribution to 2021-2030 obligation for Art. 8 EED: 26%



Source: 122/2015. (V. 26.) Government Decree on the implementation of the Energy Efficiency Act

Key actors and roles

Public authorities:

Hungarian Energy and Public Utility Regulatory Authority (in Hungarian: Magyar Energetikai és Közmű-szabályozási Hivatal, hereinafter referred to as MEKH)

Obligated parties:

- Electricity traders
- Electricity universal service providers
- Natural gas traders
- Natural gas universal service providers
- Transport fuel sellers to end users

Other key stakeholders:

- registered energy auditors, and auditor companies (responsible for checking the measure against legal requirements, calculating and verifying energy savings, providing data)
- Hungarian Chamber of Engineers (responsible for the training, examination of energy auditors)
- CEEGEX Central-Eastern European Organized Natural Gas Market Private Joint Stock Company (EKR organized certified energy saving market)

The Act LVII of 2015 on Energy Efficiency (EE Act) established the rules for EEOS.

The obligated parties provide MEKH with data on sales for the previous year. Based on this, the MEKH determines the energy saving obligation for the following year in a decision. Energy savings resulting from individual actions are calculated based on the list of eligible measures (specified in the MEKH regulation) or based on an energy audit prepared by an energy auditor or energy auditing organization. The list of eligible measures includes the individual actions resulting in energy savings that can be estimated based on a simplified engineering methodology, as well as the methods and principles for calculating the energy savings thus achieved.

Target setting and allocation

Size: According to the Energy Efficiency Act, the obligated party shall achieve annual energy savings among end users of an amount equivalent to:

- in **2021** - **0.05%** of the amount of energy subject to obligation sold by it to final users in Hungary in 2019,
- in **2022** - **0.1%** of the amount of energy subject to obligation sold by it to final users in Hungary in 2020,
- in **2023** - **0.3%** of the amount of energy subject to obligation sold by it to final users in Hungary in 2021,
- in **2024-2030** - **0.5%** of the amount of energy subject to obligation sold by it to final users in Hungary in the second year preceding each year.

Metric: The basic unit of EEOS is the certified energy savings (HEM abbreviation in Hungarian), in GJ. The calculation must take into account the rules in Annex V of the EED, as well as those contained in Commission Recommendation (EU) 2019/1658, including the lifetime of the measures.

Period: Annual obligation (with some flexibilities)

Scope: No exception, and no difference in the level of obligation for the listed obligated sectors.

Allocation rules: The extent of the obligation is determined based on sales data to end users.

Sub-target related to energy poverty: no

Other sub-target(s): Energy efficiency renovation of a residential building is eligible for preferential treatment (see below about the possibility to cumulate with public incentives).

Eligible actions

Eligible sectors: All end-use sectors. Obligated parties can fulfil their obligation by implementing measures that result in energy savings among end users in any sector.

Eligibility criteria: The EE Act and government decree contain general conditions identical to Annex V of the EED. Furthermore, from 31st March 2025, the following measures cannot be accounted for (as they have become standard practice and are therefore **no longer additional**):

- energy savings resulting from fuel additives;
- savings achieved by correcting vehicle tire pressure;
- energy savings resulting from the installation or replacement of aerators, and
- in the case of lighting modernization, energy savings resulting from the replacement of inappropriate lighting fixtures.

Possibility to cumulate EEOS with incentives from other schemes: yes

The obligated party may also combine the fulfilment of the energy saving obligation with alternative measures to which the obligated party has made a significant contribution. Non-refundable public subsidy and tax relief can be packaged by the obligated party with their own contribution and presented as an offer to the final user. In this case, the share of the energy savings that may be counted as the obligated party's energy savings is based on the share of the financial contribution provided by the obligated party.

Exceptions:

- (1) In the case an obligated party makes use of education, training, consultancy and awareness-raising programmes, 90% of the energy savings from these programmes can be counted for EEOS, while 10% are counted as alternative measures (as there are two specific alternative measures for education, training, etc.).
- (2) If the obligated party contributes to an individual action to improve the energy efficiency of residential buildings, for which the final user has made use of non-refundable public subsidy, tax relief or a combination of these, the obligated party may count 70% of the energy savings towards the fulfilment of its obligation even if it would be entitled to less.

Standardised actions or methods: The list of standard measures was published as Annex I to Decree 17/2020. (XII. 21.) MEKH. The list contains **51 standard measures**. The specifications of standard measures include the technical conditions of the individual action types, the calculation methods and principles of the energy savings thus achieved (based on simplified engineering methodology).

Non-standardised actions: In the case of non-standardized actions, an individual **energy audit** must be prepared, in which compliance with legal requirements must be verified. The achieved energy savings must be calculated or measured according to professional rules, provided through training by the Hungarian Chamber of Engineers. The additional mandatory elements of the energy audit are determined by the MEKH regulation. Conversion factors, calculation methods and principles are generally laid down by Gvt. decree 122/2015 on the implementation of EE Act (13.§, Annex 6,7).

Other eligible actions or programmes: no

Incentives (including about tackling energy poverty) and restrictions

Uplifts / bonus related to energy poverty or priority group(s): no

Other uplifts / bonus / downgrades: From 1 of January 2024, MEKH will take into account energy savings in **residential and public buildings** in excess of the obligation for the given year and not accounted for in previous years with a **double multiplier** as part of the fulfillment of the savings obligation for the following years, provided that the certified lifetime of the energy savings reaches the end of the second obligation period.

Caps / maximum limits: no

Flexibilities

Trading: Certified energy savings (HEMs) can be transferred under a bilateral agreement or on an organized market.

Banking and borrowing: **Yes** (with an incentive for early action)
Energy savings in excess of the obligation for a given year and not accounted for in previous years are taken into account by MEKH with a **1.5 time multiplier** as the fulfillment of the savings obligation for the following years, provided that the certified

lifetime of the energy savings is at least five years (three years until 2024).

The obligated party may also account for the part of the energy savings reported for a given year above the obligation for the current year as savings achieved retroactively for the two previous years. **Energy savings accounted for in the two previous years** may be assessed at a **reduced rate**. The reduction rate is:

- 50% in the case of accounting for the year preceding the current year;
- 75% in the case of accounting for the second year preceding the current year.

Certified energy savings are a right with limited marketable property value that can only be transferred to the obligated party. The transfer of energy savings that have not been certified or that have been invalidated by the MEKH, as well as the transfer of energy savings to a buyer who is not an obligated party, is not permitted.

Buyout price / substitution fee: allowed

The obligated party may choose to pay an energy efficiency contribution - in part or in full - instead of fulfilling the energy saving obligation.

The amount of the energy efficiency contribution is HUF 50,000/each 1 GJ/year not fulfilled.

According to the Energy Efficiency Act, revenues from the energy efficiency contributions should be used primarily to finance alternative measures that improve the energy efficiency of vulnerable households.

Evaluation, Monitoring & Verification

Materiality requirements: Energy auditor or energy auditing organization must verify the materiality conditions according to governmental decree. For individual actions started after June 24, 2023, a written agreement between the end user and a significant contributor is mandatory before the individual action starts. Also part of the ex-post audit by MEKH.

Additionality requirements: Energy auditor or energy auditing organization must verify the additionality conditions according to governmental decree². Also part of the ex-post audit by MEKH.

² Additionality is examined when, for example, a measure with a lifetime of 1 year is repeated in the following year. The main considerations are:

- after the first year of implementation, is it a viable scenario that the end-user reverts to the previous practice in the following year? (*see continuation of the footnote next page*)
- has implementation become part of the general business process?
- is the measure profitable, with a continuous reduction in costs?
- is the measure realistically, reasonably, and profitably sustainable without the revenue from the sale of the HEM, etc.?

The answers to the above questions help to determine whether the measure 'would have been repeated in any event' or whether its additional nature can be established.

Calculation methods: Use of **scaled savings**. The list of standard measures includes a detailed explanation of early replacement and the calculation method for cases where minimum requirement is set.

A methodological guide and calculation table are also available on the MEKH website.

Online platform to report actions: yes

Automatized checks: yes

Reporting and validation: When the auditor completes the submission of the energy savings data of the measure in the online platform (HEM Module) after verification, the entry is placed in a temporary storage (“during registration”) where 10 days are available for the MEKH to filter out errors and deficiencies for the registered HEM based on the registered data. This check does not yet include a check of the calculation method, because in most cases not all the necessary information is available. The HEM is then registered.

Progress monitoring: Obligated parties can continuously monitor the status of their obligation fulfillment on the online platform. March 31st of each year is the deadline for reporting energy savings to be counted as fulfillment of the previous year's obligations under the Energy Efficiency Obligation Scheme. Before the deadline, at the beginning of each year, all obligated parties are informed by letter about what needs to be done. The obligated party must declare by March 31st how much of the energy savings in excess of the fulfillment of the obligation prescribed for the given year it wishes to account for retroactively for previous years.

Other verifications and controls:

MEKH annually controls a statistically significant proportion of previously registered HEMs. The statistically significant proportion is determined by MEKH in an annual control plan.

Data on verification and controls:

During the control in 2024, 130 measures were selected from the 2,248 energy saving measures (or groups of measures) recorded in 2023. In addition, the control plan also includes additional aspects based on risk analysis. In 2024, a further 26 measures were selected and controlled from the new measure types that had occurred in a significant number of cases in a short time the previous year (attic insulation work, installation of aerators).

Evaluation(s) of the scheme:

Market monitoring reports are regularly prepared for HEMs, which are available on the MEKH website (<https://enhat.mekh.hu/ekr>).

The legislator (Ministry of Energy) continuously monitors the scheme's performance through regular monitoring reports and has already amended the legislation several times.

Penalties

For missing target: In case of non-fulfillment of the obligation and failure to pay the contribution within the deadline, the MEKH will impose a fine of HUF 70,000 for each 1 GJ/year of energy savings not fulfilled.

Full discharge: yes

If MEKH finds during the inspection that the energy savings, or part of them, have been incorrectly calculated, it shall oblige the verification body to achieve energy savings among end users equal

to the incorrectly calculated energy savings within 180 days, which obligation may also be fulfilled by paying a redemption fee, at the choice of the verification body. The redemption fee is HUF 50,000/GJ, and the method of payment is the same as the method of payment for the energy efficiency contribution.

Other penalties or sanctions:

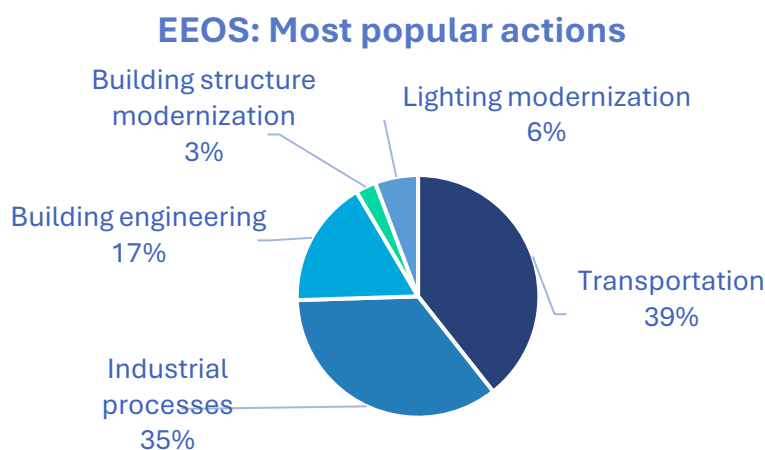
If the HEM is invalidated, the verification body shall be fined HUF 10,000 per 1 GJ of energy savings affected by the invalidation. The invalidated energy savings shall not be taken into account when fulfilling the obligation. If a fine is imposed on the verification body twice within two years, the MEKH shall, in addition to imposing the fine, simultaneously prohibit the energy auditing body from carrying out verification for five years.

Data on penalties or sanctions:

In 2024, 81 (out of 833) obligated parties were fined. Only 1% of the obligated energy savings were not fulfilled.

Key results

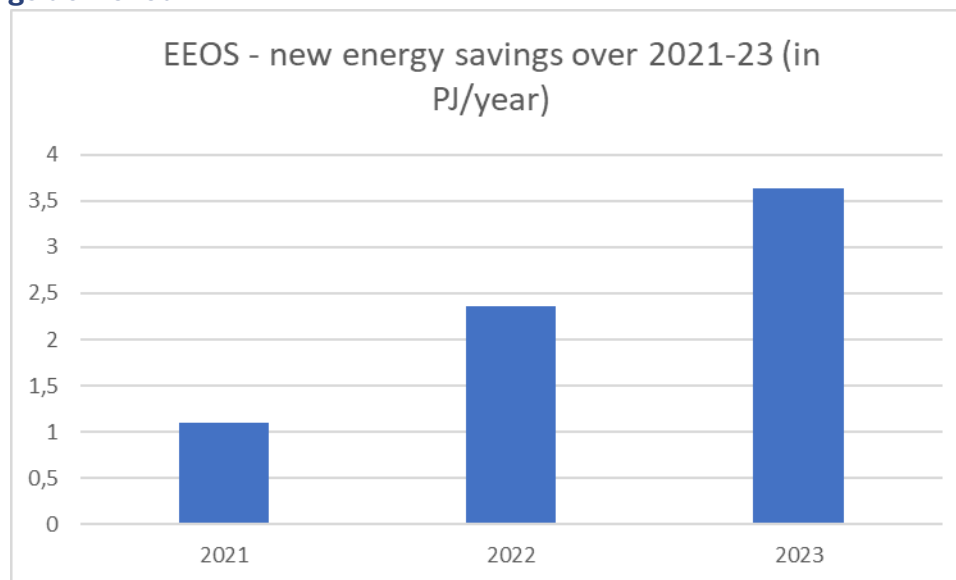
Most popular actions in 2021



Source: MEKH. Data were filtered by measure type based on the online database of verified energy savings (HEM Module)

Note: 'building engineering' includes for example the upgrading of the heating/cooling system.

Energy savings achieved



(Source: MEKH Report to Energy Ministry about energy savings 2021-2023, preliminary data)

Changes in the types and lifetimes of certified energy savings under EEOS can be tracked in quarterly market monitoring reports (<https://enhat.mekh.hu/ekr>)

Cost effectiveness

The prices established at the auctions on the secondary market for certified energy savings can be viewed in monitoring reports and on the websites of the auction organizers. (<https://ceegex.hu/en/ekr/market-results>)

In 2024 Q4 The average price of energy savings from a measure with a lifetime of at least 5 years is 10,000 HUF/1 GJ.

Sources

<https://enhat.mekh.hu/ekr>

Vedres, P. and Hohmann, J. (2024). [Introduction to MEKH and Hungarian EEOS](#). Budapest Workshop of ENSMOV Plus, March 2024.

Alternative measure – Home renovation support

History

Starting year: 2021

Latest revision: 2025

Current implementing period: 2021-2022 and 2025-2026

In 2021 and 2022, families with a child were eligible for the one-off grant.

At the beginning of 2025, the Rural Home Renovation Programme was relaunched with new conditions: in 2025-26, families living in settlements with less than 5,000 inhabitants will receive assistance to improve their housing conditions, including renovation of interiors, heating modernisation, roof replacement, installation and replacement of air conditioning, solar panels and solar panels, accessibility, building services and landscaping.

Expected contribution to 2021-2030 obligation for Art. 8 EED: The Home Renovation Support, implemented in 2021-22, has resulted in cumulative energy savings of 6,6 PJ. Expected data for the 2025-26 Rural Home Renovation Programme are not yet available.

Design and features

Type of policy measure: Financing scheme

Target sector / group: families with a child

Key actors and roles: In line with 122/2015. (V. 26.) Government Decree, the **Hungarian State Treasury** is the implementing authority of this programme.

Criteria for eligibility of the participants and/or of the actions: The grant can be applied for by families who are raising minimum one child under the age of 25 in their own property and are going to renovate their home. The home renovation support can be up to 50% of the renovation costs verified by invoices, but a maximum of 3 million forints (7200 euros) can be used, half for material costs and half for labor costs. Families can apply for an additional low-interest loan for renovations with a minimum 10% down payment.

Relevance to tackling energy poverty or supporting priority groups

Priority groups defined in the measure: Households, families with a child.

Provisions specific to the priority groups: Under Government Decree No 518/2020 on home renovation support for families with children, you can apply for support if:

- you are of legal age and capable of legal capacity,
- you have at least one child under 25 years of age in his/her household,
- you are a Hungarian citizen or exercises the right of free movement and residence in Hungary for more than three months,
- you have a social security entitlement of at least 1 year (even abroad) with a maximum interruption of 30 days
- you don't have any public debt registered with the state tax authority,
- you are single, married, divorced or in a civil partnership.

Evaluation, Monitoring & Verification

Materiality provisions: The 50% subsidy is considered “material” to achieve energy savings. The measures implemented under the programme have a long lifetime, so the impact of measures implemented during 2021 and 2022 will count towards the cumulative results until the end of the 2030 period

Additionality provisions: These savings are related to the renovation of existing buildings, so are subject to derogation based on EED Annex V point 2 (c).

Calculation methods: applicants were not required to provide data on energy savings when applying for the grant, so energy savings achieved were calculated based on an analysis carried out for the European Investment Bank (EIB).

Online platform to collect data: yes

Automatized checks: yes

Verifications and controls:

In general, the implementing authorities are responsible for checking whether individual actions have been implemented, in what form, whether they comply with the legal requirements and whether the energy savings have been correctly determined. The implementing authorities report the energy savings data of the implemented individual actions to the MEKH.

MEKH monitors a statistically significant proportion of the individual actions, based on an annual monitoring plan. The methodologies, recommendations and calculations necessary for conducting the inspections, sampling and resource management were based on the study "Monitoring and Verification Methodology" prepared within the framework of the KEHOP project.

Data on verification and controls:

In case of “Home Renovation Support”, the energy savings of individual actions were not provided, modelling was used instead of measuring.

Progress monitoring or reporting: In general cases, the results of the monitoring are sent by MEKH to the Ministry of Energy. The identified errors and deficiencies will be corrected if the data provision or action falls within the competence of the MEKH.

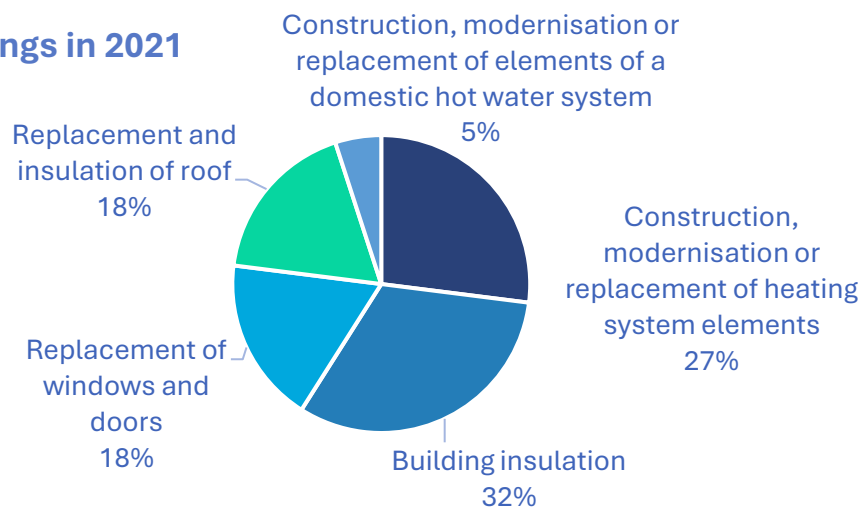
Evaluation(s) of the scheme:

In general, alternative measures are evaluated by the implementing authority or the competent ministry, sometimes by an independent expert. There is no publicly available evaluation of the “Home Renovation Support”.

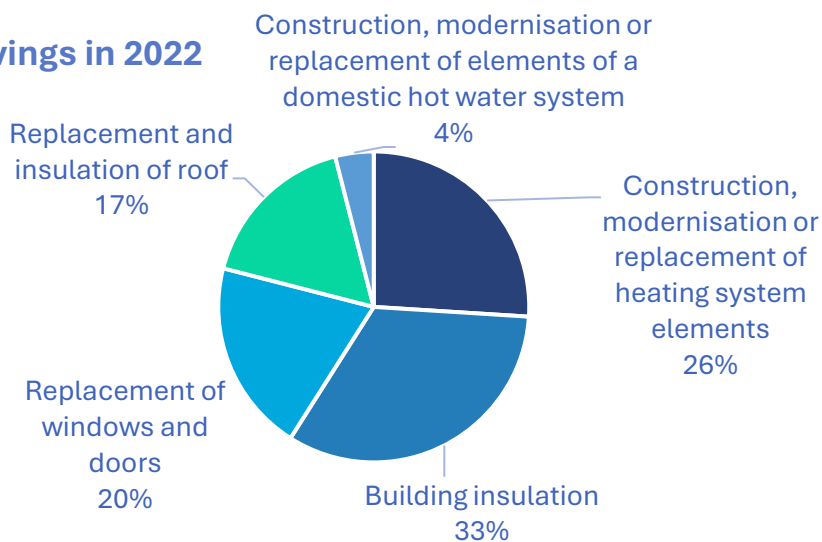
Key results

Most popular actions

Energy savings in 2021



Energy savings in 2022



(Source: MEKH Report to Energy Ministry about energy savings 2021-2023, preliminary data)

Energy savings achieved

In 2021: 2,191 PJ/year, in 2022: 4,43 PJ/year

Cost effectiveness

No official data available

Sources

<https://kormany.hu/hirek/otthonfelujitasi-tamogat-as-segiti-a-csaladokat-2021-januar-elsejetol>

Interview with Péter Vedres, Head of Department of Sustainable Development, Hungarian Energy and Public Utility Regulatory Authority



What is the general approach of Hungary to delivering the higher energy savings obligation for 2024-2030?

In order to cost-effectively meet energy efficiency targets, Hungary has implemented an Energy Efficiency Obligation Scheme (EEOS) that directs market-based investments to areas with the highest energy-saving potential. The EEOS contributes 26% to the national energy savings target, aiming for 88 PJ in cumulative savings by 2030, while the remaining 74% relies on alternative measures.

What is the approach of Hungary to deliver energy savings among target groups, and especially for priority groups (cf. Article 8(3) EED)?

There are some alternative measures designed to provide targeted support for priority target groups. For instance, initiatives such as “Home Renovation Support” for families with children and the “Hungarian Village Programme”, which facilitates the refurbishment of buildings in rural areas, aim to enhance living conditions. Additionally, the energy efficiency levy collected under the EEOS can be allocated explicitly to mitigating energy poverty.

The new Energy Efficiency Directive includes provisions in its Annex V to progressively exclude energy savings from new fossil fuel technologies (for achieving the Article 8 target). Will these new

provisions have implications on the policy measures reported by Hungary?

Since gas heating is still the cheapest heating method, a very large number of Hungarian households heat their homes with natural gas. Many of these appliances are outdated and inefficient, so many people will be adversely affected if the subsidy is withdrawn. Heat-pump heating is only economical in Hungary in very well insulated energy efficient buildings, i.e. only after deep renovation of the building.

Would you have lessons from recent evaluations of policies for future delivery? (Or what would be the main points you would like to highlight about implementation and achievements in recent years?)

The introduction of the EEOS was preceded by many doubts. Nevertheless, over the years, many people have become familiar with the measures that can lead to energy savings. Of course, there are still many corrections possible in the EEOS, but the introduction can be considered a success.

What would be the main challenges you see for the coming years?

The reduction of energy use is particularly needed in the residential sector, which is the largest energy consuming sector.

If you could go back in time, what would you do differently?



Hungary's overall approach to energy saving and the range of policy measures are set at

government level, it is not the competence of our authority.

Interview with Péter Zoboky, Head of Energy Efficiency Unit, Hungarian Energy and Public Utility Regulatory Authority



Have there been changes in EEOS in recent years? (if so, what would be the main ones?)

The Energy Efficiency Obligation Scheme was introduced after consultations and studies, with final rules established by the amendment to the Energy Efficiency Act at the end of 2020. The first year was a learning period for participants. An online database for verified energy savings became available in July 2022, and the list of standard measures expanded. Initially, most energy savings were verified through individual audits (75%), with only a small portion using the standard methodology. By 2024, the standard methodology was applied to more measures, reducing the reliance on audits. A secondary market for certified energy savings was introduced in 2023, with the first auction held in 2024.

Did you see an impact of the energy prices crisis on EEOS? (e.g. in terms of budget, participation, ...)

Yes, resulting in an increase of energy efficiency measures in the residential sector. In the EEOS, energy efficiency measures are predominantly implemented in industry, where businesses should always take costs into account in order to operate economically.

What could be bottlenecks or drivers that could hinder or support the achievement of higher results?

It can be seen that the expansion of the list of standard measures has influenced the type of measures chosen. It is important that standardised and simplified calculation methodologies facilitate specific actions leading to significant energy savings.

Are there specific provisions to ensure the quality of the actions implemented?

It is in the interest of the investors (beneficiaries) to verify the quality of the energy efficiency investments made. For standard measures, the technical criteria are laid down in the legislation. There is also a legal requirement for energy performance requirements for buildings.

How were the priority groups (or eligibility criteria) defined?

The detailed rules of the EEOS, such as the scope of the obligations, the extent of the obligations and the rebates and restrictions, are laid down in the Energy Efficiency Act.

If you could go back in time, what would you do differently?

A longer preparation period would have been needed before implementation.