

POLICY RECOMMENDATIONS IN TARGET COUNTRIES

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ABOUT THE PROJECT

Consumers Leading the EU's Energy Ambition Response through uptake of Heat Pumps (CLEAR-HP) is an ambitious adaptation of a tried-and-tested methodology, designed and developed to address consumers' needs, specifically in the adoption of heat pumps for space heating, cooling and domestic hot water production.

The **overall objective** is to facilitate consumers' access to heat pumps products by accompanying consumers throughout the whole purchasing journey, and by addressing financial and regulatory barriers.

The **specific objectives** are:

1. Consumer awareness and trust in heat pump products and available subsidies is increased and more than 40,000 consumers are ready to act and change their behaviour.
2. More qualified and skilled installers of heat pumps are available to consumers at national level.
3. Consumer investments in heat pump products increase.
4. Regulatory frameworks and financing schemes for easier adoption of heat pump products are simplified and more accessible for consumers.

Through the provision of trusted information, collective purchase schemes, an improved regulatory framework, and better access to qualified installers, CLEAR-HP will facilitate consumers' access to household renewables at an affordable price, thus allowing consumers to improve the energy performance and comfort of their homes and to reduce their energy bills in the long term.

The project activities cover [7 target countries](#), Belgium, Bulgaria, Italy, Portugal, Slovakia, Slovenia and Spain, where independent national consumer organisations are supported by BEUC, The European Consumer Organisation, the International Consumer Research & Testing (ICRT) and the European Heat Pump Association (EHPA).

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INTRODUCTION

Following the project's main aim to facilitate consumers' access to heat pumps products, the objective of Work Package (WP) 3 is to shape regulations, policies and incentive schemes to enable consumers' active participation in energy markets and help them engage easily in RES and EE technologies, and more specifically in heat pumps.

The first step to achieve this objective was made by the analysis of the relevant legislation and financing schemes in the target countries of Belgium, Bulgaria, Italy, Portugal, Slovakia, Slovenia & Spain.

Through a comprehensive assessment of national policies and legal frameworks, coupled with gathering firsthand consumer insights, experiences, and feedback regarding national legislation and financing schemes for heat pump installations, barriers and obstacles hindering consumer adoption of heat pumps and renewable energy sources were investigated. As a result of this research, a series of recommendations are presented in the sections below, to offer solutions aimed at increasing the uptake of heat pumps in the EU.

The recommendations are categorised into groups of potential tools aimed at enhancing conditions for transitioning to heat pumps. These tools can be implemented collectively or independently based on an assessment of the current status of heat pump installations and the trajectory toward achieving objectives in individual project countries, as well as in other countries within the European Union.



OUR POLICY RECOMMENDATIONS IN A NUTSHELL

Roadmap to speed up deployment of heat pumps

- * **MAKE** the electricity for heating purposes more affordable by reviewing all fiscal tools and identifying areas where reductions or exemptions can be implemented.
- * **PROMOTE** new instruments to reduce consumption and price (smart meters, dynamic price).
- * **BRING** predictable and sufficient subsidies especially for low-income households.
- * **COOPERATE** with banks, electricity suppliers, heat pump suppliers and energy performance contractors to **CREATE** innovative financial schemes for investments.
- * **INVOLVE** municipalities to contribute to climate targets.
- * **SUPPORT** qualification and trustworthiness of installers.
- * **HELP** consumers in feeling comfortable with investing in heat pumps.
- * **GIVE** multi-apartment buildings real chance to switch to heat pumps.



AREAS OF INTERVENTION AND TOOLS

Electricity price

When households contemplate retrofitting their heating systems or seek solutions due to malfunctions, operational costs become a critical consideration. Unfortunately, electricity, as a fuel, is often less affordable than other options, which removes it from any consideration based on pricing alone. The high electricity prices prevalent in all project's target countries pose significant barriers for consumers considering transitioning their heating systems to heat pumps. In comparison to traditional gas boilers, electricity prices in some countries can be up to three times higher than gas prices.

In countries like Slovakia, where there is extensive gas network coverage, many individuals do not even entertain the idea of switching from gas to electricity. To bridge this gap and align with the European Union's heating efficiency and climate targets, governments have several potential tools at their disposal.

Fiscal tools for the reduction of electricity prices

To ensure the affordability of heat pumps, it is essential to alleviate the tax and levy burden on electricity, which currently hinders its competitiveness with gas. In response to the energy price crisis sparked by the Russian invasion in Ukraine, many EU Member States have taken decisive action to address this issue. One such measure involves significantly reducing the value-added tax (VAT) on electricity and gas as a temporary measure to enhance affordability for consumers. For example:

- Belgium reduced VAT on energy from 21 % to 6 % in May 2023.
- In Slovenia VAT has been temporarily reduced from 22 % to 9.5 % but has been increased to 22% again.
- Since 2016, there has been ongoing demand in Portugal for reduced VAT applied to the whole electricity invoice and to all consumers independent of the latest energy price crisis.
- In Spain, the VAT was reduced from 21 % to 5 %, then increased to 10% but it is back to 21% now.

The energy crisis example highlights how governments can swiftly use VAT reductions as a financial steering tool with minimal administrative burden. Therefore, it is imperative to continuously emphasise the benefits of implementing such tax reduction measures to enhance the uptake of heat pumps.

Fees for services, taxes, and levies unrelated to energy should be removed from electricity bills and instead paid separately by users of those services. This adjustment could lower electricity prices and make electric heating options more economically feasible for consumers, thus alleviating the imbalance. For instance, in Italy and Portugal, there is a fee for the national broadcaster included in consumers' electricity bills. This additional charge, unrelated to electricity consumption, contributes to the opacity of electricity prices for consumers. To enhance transparency and affordability, it is essential to eliminate such charges from electricity bills immediately.

Many countries impose other taxes and fees on electricity to support the rollout of renewable energy or to raise funds for special programmes for vulnerable households. Imposing additional costs to support renewable energy may be reasonable for consumers who are not actively participating in the energy transition. However, it is unfair to burden individuals who have already invested in renewable energy

solutions for their homes. Exempting these charges for renewable energy users could serve as an incentive for others to adopt RES and actively contribute to the transition. For example, in Slovakia, there is a levy to support renewables and a levy on old nuclear plants. Consumers who switch to heat pumps should be exempted from these types of charges as a form of reward for their contribution to society's energy transition and climate goals.

Excise duties should also be redesigned to make sense from an environmental perspective, for example by moving from volume-based to energy content-based taxation.

When appropriate, consortium members will also advocate for and explain the prospective carbon tax on heating fuels as an effective policy tool to promote the adoption of heat pumps. This aligns with the European Emissions Trading Scheme (ETS) 2, which, starting from 2027, encompasses emissions from heating and mobility. It is anticipated that this inclusion may result in significant price hikes for consumers reliant on fossil fuels. Notably, in Nordic countries, a similar approach has successfully levelled the prices of various fuels.

To meet the objectives effectively, Member States should reassess the current levies incorporated into electricity bills, considering the possibility of reallocating or eliminating those that are obsolete or nonessential. With the expected rise in gas prices post-2027 due to ETS 2, transitioning to a heat pump or district heating system may become economically feasible well before the end of a gas boiler's lifespan or its malfunction. If feasible, shifting part of the levy burden from electricity to gas before 2027 could enhance the affordability and competitiveness of heat pumps compared to gas boilers in terms of operating costs even before the anticipated timeline.

Special tariff for heat pump owners

Unfortunately, using a heat pump today often entails high operating costs for users. In addition to the taxes and levies on electricity, heat pump users may also face higher prices from electricity suppliers. Despite their higher electricity consumption, heat pump owners typically do not receive any discounts, unlike other business cases with larger purchases.

In Slovakia, some suppliers demand a higher average price per 1kWh for households with a heat pump compared to households without a heat pump. In some other cases the price difference in favour of heat pumps is minimal. This means if consumers heat with other sources such as oil and gas - which are potentially harmful for the environment, the electricity price for other appliances in a household may be lower than if consumers heat by heat pump. This is not only unfair but also sends a wrong signal to consumers and does not take the polluter-pays-principle into account.

A specific tariff for heat pump owners through Member States regulatory measures could ensure that electricity used to run heat pumps becomes cheaper. This could motivate people to opt for renewable energy solutions and it would also reward them or at least not financially disadvantage them for their participation in the energy transition. Such a strategy not only promotes energy efficiency but also encourages the integration of renewable energy sources into the grid, contributing to overall decarbonisation efforts.

In certain instances, specific tariff mechanisms could be employed alongside or, in countries with unstable support systems, instead of subsidies. This approach aims to avoid complicated administrative processes and reduce uncertainty regarding the duration and extent of subsidies. Slovenia, for example, has two electricity suppliers that offer special tariffs for heat pumps. However, since 90% of the price is still regulated, only 10%

of the overall price can be set as a special tariff by suppliers, which makes the difference marginal. In the past, Italy experimented with a special tariff which however was never implemented. Another example, although this is not a CLEAR-HP target country, is provided by the United Kingdom, where the Heat Pump Association proposed to the government to introduce a temporary fix – the [Domestic Heat Pump Tariff Discount](#) – as interim measure which should bridge the gap between the current state, and the time when all levies can be removed from electricity bills. This discount, proposed in 2024 but not yet implemented, would reduce the price of electricity used for hot water and heating produced by heat pump, to an amount equivalent to exempting that proportion of electricity from levies.

To sum up, without special tariffs for heat pump users which reward people with much lower running costs during the use phase which can counterbalance the still higher upfront investment costs for heat pumps it will be difficult to convince more consumers to opt for a heat pump.

Dynamic prices

Dynamic prices could become a clear opportunity to provide cheap green electricity from solar production for using heat pumps during parts of the year. This would decrease operating costs for consumers.

Taking advantage of flexibility, consumers can also reduce the price of electricity consumed during whole year, e.g. by heating their homes before they come home in case electricity is cheaper at that moment of the day.

Implementing these solutions is not straightforward and may pose challenges for the average consumer. Therefore, to enable households to seize this opportunity, there is a need for increased support and awareness. Furthermore, consumers would require guaranteed protection during periods of high prices. This could involve governments implementing price caps and offering the option to switch to regulated prices promptly. In recent years, Spain served as a good example of using dynamic pricing, offering consumers access to a sophisticated information system displaying current prices. However, amidst the energy crisis, the system transitioned to one resembling a fixed pricing structure¹.

Synergy with solar energy

There's no question that installing a photovoltaic system significantly lowers the operating costs of heat pumps. By supplying heat pumps with free electricity generated on-site, particularly during peak usage periods when the heat pump is active, or by using electricity stored in a home storage battery, this effectively enhances the affordability of heat pumps for consumers.

Prosumers who install PV panels on their roofs not only save money by generating their own energy but also contribute to society by reducing CO2 emissions and alleviating electricity demand during certain times of the day. Indeed, prosumers make significant investments in purchasing photovoltaic systems, benefiting

¹ More examples can be found in BEUC's new study on [Dynamic electricity pricing](#), which explores dynamic electricity pricing's potential to save consumers money on energy bills, particularly with heat pumps. It highlights benefits, such as significant savings in certain countries, even without sophisticated technology. Recommendations include making dynamic pricing widely available, adjusting tax systems, and providing reliable information to consumers.

society as a whole through reduced CO₂ emissions. Additionally, their support for the photovoltaic sector stimulates its growth, contributing to the overall development of the business sector and economy.

This development, spurred by the installation of solar panels, must now extend to the area of heat pumps. Achieving substantially larger savings on fossil fuels, particularly in the residential sector, is imperative for ongoing progress. However, in order to convince more consumers to make those investments, they should be motivated by some kind of benefits taking into account that they decided to prioritise decarbonisation goals of society instead of spending their income on a more expensive car, vacation or house furnishing. As the return of initial investment costs will only materialise after many years, consumers should receive more incentives and financial rewards in case they are willing to contribute significantly to the decarbonisation of heating and cooling.

Governments should implement programs that incentivise the installation of both PV panels and heat pumps, offering additional benefits compared to installing only one of the options. This is crucial because the combined investment costs of solar panels and heat pumps are currently financially unattractive. In some countries such as in Belgium, governments already augment the premium for building insulation in case several cost-intensive works are being carried out at the same time. The same logic should be applied to the combination of installing solar and heat pumps.

Smart meters

Smart meters could be an effective tool to reduce the consumption and thus the overall costs of electricity in households. In some countries there is a specific obligation to introduce smart meters in all households, as exemplified by Portugal's deadline by the end of 2024. However, in other countries like Belgium, the deployment of smart meters has only recently gained momentum, with acceleration beginning last year. Slovak consumers are entitled to a free smart meter only in case their annual consumption exceeds 4 MWh.

Undoubtedly, smart meter data facilitates the provision of energy efficiency services. By influencing household behaviour, this can lead to a reduction in the operating costs of heat pumps as well.

Governments should prioritise accelerating the roll-out of smart meters to ensure their installation in all households. A notable example of best practice comes from Cyprus, where the Electricity Authority employed additional staff to expedite the installation of smart meters at no cost to consumers. This positive outcome was achieved through advocacy efforts led by the Cyprus consumer organization during the CLEAR-X project.

Financial schemes

Subsidies

A fundamental obstacle hindering the widespread and rapid adoption of heat pumps lies in the inadequacy of subsidies across most countries. An examination of financing schemes within project countries revealed that subsidies for heat pump installations are insufficient, unpredictable, and lack programs tailored for low-income or energy-disadvantaged individuals.

To address this challenge, subsidies need to be restructured and targeted to ensure adequate support, thereby making heat pumps financially accessible to all economic segments of the population.

In countries where subsidies for heat pumps, such as Bulgaria, have not yet been established, it is imperative to initiate state financial support without delay. The upfront costs of heat pump installations, particularly for air-to-water heat pumps, are beyond the reach of most households, especially when prior building insulation is mandated. Member States cannot afford to be indifferent to the necessity of financial support while simultaneously advocating for an energy transition. Fortunately, there are examples across Europe that can be used to expedite the establishment of support programs in a timely manner.

Existing subsidies must offer long-term predictability without interruptions and must ensure sustained affordability for consumers. This predictability is crucial for both consumers and suppliers, enabling better planning and investment and facilitating a smoother transition from fossil fuels to heat pumps. For instance, in Slovakia, subsidies for heat pumps ceased in March 2023, with a new program scheduled to launch in June 2023. However, after being postponed until 30 October 2023, the registration system was launched only on the 29th April 2024, resulting in 14 months where subsidies were unavailable for consumer. Such prolonged gaps and uncertainty are unacceptable for consumers. Permanent and stable support schemes are needed in all target countries.

Ensuring the accessibility of heat pumps to all households necessitates the implementation of special financial schemes tailored for low-income and energy-poor groups. These households are often the most affected by high heating costs and the least able to invest in energy-efficient technologies. In Slovenia, while a support scheme for energy-poor individuals exists, there is a notable absence of a specific program for low-income households. Furthermore, in Italy, low-income consumers are excluded from the current support scheme, which offers a 10-year tax reduction that primarily benefits individuals with higher incomes who are taxpayers.

Given that the upfront costs of a heat pump are 3-4 times higher than those of a condensing gas boiler, low-income and even middle-income households are unlikely to consider a heat pump as a viable solution when faced with repairing an old gas boiler or contemplating future heating system modernisation. To change this perspective, permanent government support in the form of clear financial conditions and promotion of the advantages of heat pumps is essential.

Loans

In all project countries except Slovenia, public loans are not available for the purchase of heat pumps in residential properties. However, in Slovenia, the ECO Fund provides loans alongside subsidies for installing devices and systems to enhance the use of renewable energy sources for space and water heating. These loans feature lower interest rates compared to private loans and have a maximum repayment period of 10 years. They are offered through public calls, which are periodically announced and open for applications during specified periods. On the other hand, in Slovakia, state loans are available only for the renovation of multi apartment buildings where the purchase of heat pumps is part of the renovation.



Missing public loans mean missing opportunities to increase heat pump installations in middle-income households. This group of people could be interested in switching to RES technologies, but those consumers are not willing to spend all their savings for this investment. Therefore, breaking down the upfront investment costs into smaller payments over time through attractive loans, potentially with zero-interest rates, would be highly appreciated.

Public loans with low or zero interest are also interesting because they come often with less administrative burden than subsidies. Such loans also increase and complement the overall amount of money in the system which can also be accessible for energy poor and low-income households.

In the private bank sector, project partners have investigated different types of green loans. However, we found that the conditions related to the total amount of the loan, the interest rate and repayment periods are not attractive. This is a barrier to persuade people to quickly switch to RES technologies. Most of these green loans are very similar to ordinary loans without any significant benefits that would reward people who decide to invest to green heating systems. For example, energy loans provided by banks in Belgium are available with an average 0.5% interest rate discount compared to traditional renovation loans. In region Wallonia, zero interest loans are available for low-income households or large families for energy-savings works including the installation of heat pump. In Italy several banks have started to offer green loans linked to mortgage at a lower interest rate if money is spent to improve efficiency (increasing at least one energy class).

Stakeholders should put pressure on banks to make a stronger contribution to this societal need for an energy transition and to create products that are genuinely interesting to people and underline the banking sector's efforts to contribute to this change.

“Pay as you save” loan

Another viable option to cover the cost of purchasing a heat pump could involve a supplier loan, where repayments are made from future savings on heating expenses. This financing arrangement proves especially beneficial when transitioning from an electric heating system to a heat pump or when conducting a comprehensive energy retrofit. An energy audit assesses the anticipated electricity cost savings post-retrofit, determining the loan repayment amount. For instance, a well-established system in the Czech Republic involves an energy performance contractor conducting energy audits in non-residential buildings, proposing energy cost reduction solutions, and offering financing loans if needed, which are then repaid from future energy savings.

On bill schemes

As a financial instrument to split upfront costs of heat pumps in instalments over time, on bill schemes are a great solution for households with average income who are not convinced about benefits of such big investments. With information and promotion by governments and electricity suppliers offering fair financial instrument without side costs, consumers will get additional possibilities to finance their upfront investments costs. This instrument can be very effective as it addresses consumers' financial concerns for this type of investment.

During the CLEAR-X project, the Cyprus consumer organisation managed to make an agreement with photovoltaic system suppliers to grant financial facilities to consumers for the purchase and installation of photovoltaic systems, which consumers should return gradually, in parts, with zero interest rates. This example could be taken up by governments and consumer organisations to convince electricity suppliers, who already offer some energy-efficient services, that this option not only helps consumers but also improves their own business.

Lower VAT for the devices and installation services

Reducing VAT for both devices and installation services presents a straightforward funding support mechanism, circumventing administrative burdens and complex registration procedures. This approach enables individuals to promptly lower their investment costs without enduring prolonged waits for partial cost reimbursements, as seen with certain subsidy programs. Governments can adopt this tool within short timelines and a special VAT has already been adopted in many countries for some products either permanently or temporarily.

For example, lower VAT (9.5 % instead of 22%) is introduced in Slovenia for RES devices in residential buildings. Also in Belgium, in 2023 the VAT has been reduced from 21% to 6% for solar and heat pump installations with an extension for 2024. Portugal has reduced VAT to 6% for both, purchasing of heat pump and its installation. Installation costs are taxed with reduced VAT of 10% in Italy.

Lower property tax

Municipalities should also play a vital role in advancing the energy transition by offering support to individuals investing in their homes, aligning with climate objectives. Given their limited toolkit, municipalities can offer a temporary reduction or exemption in property taxes as a valuable incentive along this energy-efficient pathway. For instance, certain French cities have implemented a property tax exemption ranging from 50% to 100% for up to three years following a house's energy retrofit, encouraging sustainable and low-carbon housing improvements.

Qualified suppliers and installers

To persuade people that heat pump technology is among the best options for heating, it's essential to instil trust in this technology. While this technology is mature and can be rolled out at large scale, the gas industry has contributed to an overall public negative perception. What can change this negative perception is if people get positive narratives and examples from family or friends who already made the transition to more sustainable heating and who are very satisfied with this change in terms of comfort, user-friendliness of the devices, lower financial running costs and lower negative impact on the environment.

Just as individuals trust the experiences of their relatives, establishing trust in the authorities responsible for facilitating the energy transition is crucial. Authorities, in cooperation with experts, are creating qualification requirements for installers, put in place control mechanisms and should provide sufficient training programmes to ensure sufficient numbers of trusted and qualified installers. To increase general confidence

in this quite a new type of heating system, improvements in the quality of service and regular training are needed to keep the certificate valid.

Checked list of certificated installers

The project partners' research indicates that individuals frequently struggle to select heat pump suppliers and installers when lacking recommendations from acquaintances. In the absence of such guidance, they may feel overwhelmed by the abundance of information and advertisements. Currently, they cannot rely on public authorities to provide them with reliable expert advice. For example, in Slovakia, there exists only a list of installers registered in the subsidy system by the Energy Agency, which lacks verification for quality and reliability. On the other hand, both Slovenia and Portugal offer a list of certified installers², which allows consumers in vetting these professionals before signing a contract.

In countries prioritising the transition to renewables, governments should establish public registries listing all qualified installers for heat pump services. These registries should offer comprehensive details on their qualifications, training, and undergo regular verification and data updates to ensure accuracy and reliability.

Regular training

Under the CLEAR-HP project, partners conducted research on available training systems in their respective countries and identified several deficiencies that urgently need to be addressed. These include:

- Optional trainings for heat pump installers, rather than mandatory ones (Slovenia).
- Qualifications valid only in certain regions within a country, restricting installers' geographical scope (Belgium).
- Training certificates with a 5-year validity, automatically extended without additional checks or training requirements (Slovakia).

These shortcomings have negative effects and require improvement to ensure both the availability and quality of service for consumers. Given the constant advancements in technology, it's crucial for installers to stay updated with the latest knowledge, which should be made mandatory. Additionally, installer training programs could be expanded to cover aspects of consumer law, pre-contractual and contractual terms, warranties, and design and construction considerations to prevent noise and architectural planning issues.

Strengthening consumer rights

Promotion and information

According to article 18 of the Renewable Energy Directive, Member States have an obligation to develop suitable information, awareness-raising, guidance, or training programmes to inform citizens of the benefits and practicalities of developing and using energy from renewable sources. This requirement also aims to promote heat pump technology as the most efficient and climate friendly heating system.

² In Portugal's case, this list can be found on the website of the Portuguese Environmental Agency.

Consumers require clear communication from their governments regarding the most effective solutions for addressing climate change and environmental pollution. This communication should be free from any implicit or explicit favouritism toward gas companies or gas boiler manufacturers, ensuring unbiased guidance on sustainable energy options.

Insufficient communication campaigns in the project's target countries fail to provide clear and accessible information to consumers about the benefits of RES. This lack of information, particularly concerning prosumers and vulnerable consumers, contributes significantly to consumers' reluctance to adopt technologies such as heat pumps. Efforts should be made to persuade governments to prioritize communication campaigns, demonstrating successful transitions to heat pumps across diverse demographics.

One stop shops

Certain EU countries have established one-stop shops (OSS) for home renovations, while others are in the process of creating regional renovation offices. These initiatives often include sections dedicated to promoting heat pump installations. Additionally, some countries are involved in projects aimed at implementing OSS specifically for home renovations, integrating heat pumps into their services.

The primary responsibility for providing professional advice and information on home renovations, including heat pump installations, should remain with public authorities. Governments should establish OSS predominantly in local areas rather than regional territories. This localisation ensures accessibility, especially for vulnerable consumers with limited access to information and transportation. Call centres, supplemented by only four energy offices serving the entire country, provide limited advice and do not meet the objectives set for OSS. This is the case in Slovakia, for example.

After establishing OSS with full functions, big information campaigns would be welcome to make people familiar with heat pumps technology and the main services of OSS.

In some countries the role of government could be replaced by other stakeholders, as exemplified by the European project HORIS, which aims to provide OSS for all energy retrofits in Portugal, Spain and Italy. However, long term sustainability and free of charge for consumers is inevitable prerequisite for such projects.

ADR incorporated in heat pump installations

Disputes occur all the time, regardless of the subject matter or good contractual preparation and can cause significant problems and delays. Alternative Dispute Resolution (ADR) offers a way of resolving disputes fairly and quickly. Time and results matter to consumers in case they are in a difficult situation such as needing heat and water during winter.

We believe there is a significant need for ADR mechanisms in cases involving heat pump installations. Both suppliers and installers should be liable parties in ADR proceedings, especially when issues arise regarding the quality of their services. Member States do not have to wait for European legislation. They can strengthen consumer rights by national legislation immediately.

Online tools

Online tools such as calculators with tailored functions could greatly assist consumers in making informed decisions regarding RES issues. Heat pumps remain largely unfamiliar to the general population, and many people lack a comprehensive understanding of this technology and its benefits for their homes. While some suppliers offer their own calculation systems, these may not always be impartial or accurate, as they aim to promote their products. Therefore, there is a clear need for an unbiased public tool to provide reliable information.

Governments are well-positioned to introduce such a tool on the websites of regulatory bodies, energy agencies, or other relevant organizations. This initiative would empower consumers with the knowledge needed to evaluate the suitability of heat pumps for their homes. These tools should offer a comprehensive comparison of heating technologies, considering not only initial costs and operating energy expenses but also factors such as efficiency, energy savings, and life cycle assessments. This holistic approach would provide users with a clearer understanding of the long-term implications of their choices. Moreover, these tools should quantify the environmental impact, illustrating how the use of a heat pump, compared to fossil fuels, contributes to emissions reduction. An excellent example of such a tool is found in the Flemish region of Belgium, where a heat pump readiness tool is available for consumers.

Multi-apartment buildings

Facilitating the transition to heat pumps in multi-apartment buildings is pivotal for advancing the energy transition in residential areas. In countries like Spain, where 65% of people reside in such buildings, and Slovakia, with 2.2 million apartments compared to 1.2 million family homes, the shift to sustainable heating systems is imperative for meeting decarbonisation targets. However, existing legal frameworks in all project countries effectively hinder the adoption of heat pumps in multi-apartment buildings. This regulatory constraint presents a significant barrier to achieving sustainability goals in the residential sector.

Implementing heat pumps as heating devices in new building projects is feasible, but significant barriers persist in old multi-apartment buildings. Disconnecting from district heating in such buildings is often impractical or financially burdensome.

Achieving consent and readiness for this transition requires substantial legislative reforms. These changes should encompass building regulations, decision-making processes within these buildings, thermal energy regulations, and the establishment of support schemes tailored to these building types. Without these reforms in place, individuals are unlikely to consider such transitions.

Despite those barriers, there are [several cases across Europe](#) where heat pumps in multi-apartment buildings were already installed with success. The success of these projects can be attributed to several key factors, including the owners' dedication to finding optimal solutions for the multi-apartment building, the support provided by heat pump manufacturers, and the assistance of local authorities.



In the Project target countries with a significant number of older multi-apartment buildings, as well as in other Member States facing similar challenges, the following recommendations could prove instrumental in addressing the existing deficiencies in heating systems:

Clear and unified conditions for the supply of heat and hot water in multi-apartment buildings

The decision-making processes for owners of flats and non-residential premises in multi-apartment buildings are significantly complicated by varying legislation, state measures, permitting processes, heat prices, contractual agreements between heat suppliers, owners' associations, and household consumers, as well as technical conditions of buildings affecting heating options. Standardising processes, procedures, criteria, and deadlines across legal regulations and improving the quality of information provided by governments or municipalities to consumers in such buildings is desirable. Standardisation of voting processes is also essential to uphold democratic principles in decision-making.

It's also crucial to ensure fair and balanced heat supply and off-take contracts to minimize potential harm to consumers. Member States should adopt legislation that establishes legal frameworks for a straightforward, predictable process for disconnecting from central heating sources, without imposing economic penalties. Additionally, they should promote central heating only when coupled with mandatory strategic investments in renewable energy sources. Simultaneously, raising awareness among homeowners about the economic and environmental impacts of their heating choices is essential, accomplished through tailored, comprehensive advice suited to their specific circumstances.

Clear administrative and technical guidelines for HP installation's site

Legislative reforms mandating the sale or lease of public spaces/land owned by cities and municipalities at a predefined price in cases where buildings lack space for installing heat pumps, or the establishment of easements in favour of multi-apartment buildings investing in heat pumps to enhance energy efficiency, would mitigate inconsistencies and varying levels of cooperation among municipalities.

State subsidies, credits and loans for multi apartment buildings

A comprehensive re-evaluation of subsidies for multi-apartment buildings is imperative to enable a genuine transition to heat pumps. Currently, apartment owners face significant discrimination compared to house owners in accessing subsidy schemes for heat pumps. Increasing financial and energy literacy, along with support from qualified advisers, is essential. Additionally, banks should be encouraged to develop financial products that offer financial benefits and incentives for multi-apartment buildings seeking to invest in heat pumps. Measures such as guaranteed rate reductions or zero VAT for the installation and all heat pump equipment could be considered, as the payback period for multi-apartment buildings may exceed one generation of occupants.

Hydro geological surveys and drilling

Before installing certain types of heat pumps, conducting a hydrogeological investigation to assess the feasibility and functionality of the pump is necessary. This involves determining whether there is an adequate groundwater source in the area. However, there is currently a shortage of professional capacity in the market to conduct such investigations. Additionally, weather conditions at the site must be considered in the planning process, as surveys cannot be carried out in winter months when the ground is frozen or covered with snow.

The process of transitioning residential buildings to heat pumps involves obtaining numerous permits, assessments, and adhering to regulations, all of which incur costs for the building owners. To incentivise and ease the transition to heat pumps for multi-apartment buildings, one approach is to exempt or co-finance these costs through state funding, potentially supported by EU funds designated for green energy transition and decarbonization efforts.

Electricity source to drive the heat pumps in multi apartment buildings

In multi-apartment buildings, heat pumps can be powered by electricity from the distribution network or by generating their own electricity. However, there is a need for simplification and acceleration of the process for connecting to the distribution system, as well as unification of conditions for sources with different reserved capacity. In Slovakia, for instance, obstacles arise from the complex development of energy communities and restrictions on producers supplying more than 10% of the reserved capacity of generated electricity to the grid, enforced by contractual penalties. This situation can deter and pose challenges for multi-apartment buildings, especially during periods of high electricity generation (e.g., sunny days) but low consumption (e.g., when most occupants are away at work or school).