CLEAR-HP

REPORT ON THE NATIONAL IMPLEMENTATION OF SELECTED EU ENERGY LEGISLATION IN TARGET COUNTRIES AND ASSESSMENT OF AVAILABLE FUNDING SCHEMES FOR HEAT PUMPS

DECEMBER 2023

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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).

Project Title	CLEAR HP
Grant Agreement	101119923
Project Duration	34 months
Starting Date	1 September 2023
Deliverable Title	Report on the national implementation of selected EU energy legislation in target countries and assessment of available funding schemes for heat pumps
Deliverable Number	D3.1
Work Package	WP3
Submission Date	22/12/2023
Author	SOS (Simona Šimková Ličtiaková and Petra Vargová Čakovská)
Dissemination Level	PU - Public

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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.

To reach this objective, the first task of WP3 is to assess the relevant legislation and financing schemes in the target countries, which are Belgium, Bulgaria, Italy, Portugal, Slovakia, Slovenia & Spain. It is why the first deliverable of WP3 is about analysing national policies and legal frameworks in detail, checking whether they allow consumers to take more sustainable choices, and whether consumers face barriers in applying to financing schemes for heat pumps.

The analysis of the legislation focuses on the state of implementation of relevant EU legislative acts, particularly:

- **Article 4** and **Article 18** of the revised **Renewable Energy Directive** (Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources)
- **Article 12** of the **Electricity Directive** (Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU)

The assessment of specific articles primarily focuses on the accessibility of public subsidies for heat pumps and the regulations concerning termination fees for electricity offers bundled with loan/leasing agreements for heat pumps. The purpose of this review is to find out whether support schemes for the increase of electricity from renewable sources are properly communicated to consumers, including vulnerable consumers, whether they can be accessed by consumers in a non-discriminatory way and whether they are too burdensome.

This review also evaluates the state of certification rules of installers in target countries and considers the role of National Recovery and Resilience Plans in the EU's efforts to double the rate of deployment of heat pumps.

Moreover, this deliverable offers a collection of first-hand consumer insights, experiences and feedback in relation to national legislation and financing schemes for the installation of heat pumps.

With this purpose in mind, each partner carried out a detailed analysis of the specific EU energy legislation implemented at national level, and available financing schemes identifying barriers to consumer uptake of heat pumps.

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METHODOLOGY

To obtain relevant information from all target countries about the legislation and financing schemes, a questionnaire was prepared and distributed to each of the national consumer organizations (AE, BNAAC, DECO PROTeste, OCU, SOS, TA, and ZPS). The questionnaire focused on the state of national transposition of the above-mentioned articles, presentation of available funding schemes for the support of heat pumps installations and identification of barriers for consumers to switch to heat pumps.

The template of the questionnaire can be found in *Annex 1* of this report.

For the purposes of presenting first-hand consumer insights, project partners carried out consumer´s surveys in their countries and collected information from the cases they met with.

ANALYSIS ON NATIONAL IMPLEMENTATION

Directive 2019/944 (ED) had to be transposed to the national law by 31 December 2020 and the deadline for transposition of Directive 2018/2001 (RED) was 30 June 2021.

Country	Renewable Energy Directive (2018/2001) Transposition Yes/No	Electricity Directive (2019/944) Transposition Yes/No
Belgium	Yes	Yes
Bulgaria	Yes	Yes
Italy	Yes	Yes
Portugal	Yes (but under review)	Yes
Slovakia	Yes	Yes
Slovenia	Yes	Yes
Spain	Yes	Yes

While the table above paints a positive picture, the details provided below highlight some complexity: while the Renewable Energy Directive has been transposed in all countries, several project countries report imperfect transposition and a lack of support schemes for consumers created, for example, which are key parts of the Directives analysed.

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ARTICLE 4 - RENEWABLE ENERGY DIRECTIVE

of the Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources

Support schemes for energy from renewable sources

To assess the current state of national implementation of this article, partners from target countries investigated if this article has already been transposed, fully or partially, if there already are any support schemes under this article applied in their country, how they are evaluated with regard to openness, competition, transparency, non-discrimination and cost effectiveness and whether there are any special mechanisms established to ensure the regional diversification in the deployment of renewable electricity.

Country	Has Article 4 been adequately transposed and are there support schemes for consumers to transition to RES, particularly heat pumps? Yes/No
Belgium	Yes
Bulgaria	Yes – though communication to consumers has not been sufficient
Italy	Yes, the RED has been transposed, but support schemes to switch to heat pumps are limited and not linked to Article 4 of the RED.
Portugal	Yes – The Portuguese government claims to have fully transposed the RED but this is under review by the European Commission. Some heat pump subsidies and tax incentives do exist, but not due to Article 4 of the RED.
Slovakia	Yes- the RED has been transposed and support schemes do exist, but the schemes are not linked to Article 4 of the RED.
Slovenia	Yes – the RED has been transposed, and support schemes do exist under the Eco Fund. However, this is not linked to Article 4 of the RED.
Spain	Yes – the RED has been transposed. Heat pump subsidies do exist but these are not linked to Article 4 of the RED.

Belgium

In Belgium, the transposition of European directives is executed regionally by regional parliaments into regional regulations. Article 4 of RED was transposed into Belgian law in the north and south of the country (Flanders and Wallonia respectively), by Decree. In the Brussels Capital Region, it was done by Ordinances.

- ⇨ Walloon Region: Decree of 5 May 2022 amending various energy provisions as part of the partial transposition of Directives 2019/944 on common rules for the internal market in electricity and 2018/2001 on the promotion of the use of energy from renewable sources and with a view to adapting the principles relating to tariff methodology.

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- ⇨ Flanders: 14 July 2023: Decree amending the Energy Decree of 8 May 2009 as regards the activities of system operators and repealing Article 22 of the Decree of 2 April 2021 amending the Energy Decree of 8 May 2009 partially transposing Directive 2018/2001 on the promotion of the use of energy from renewable sources and transposing Directive 2019/944 on common rules for the internal market in electricity and amending Directive 2012/27. There is also a specific Decree for financial support: Decree stimulating sustainable energy production and climate transition modified on 15-11-2023.
- ⇨ Brussels Capital Region: Ordinance of 17 March 2022 on the organisation of the gas and electricity market updates the Ordinance of 19 July 2001 concerning the organisation of the electricity market and the Ordinance of 1 April 2004 on the organisation of the gas market.

From the perspective of support schemes applied under this article, in the Walloon Region there are calls for projects which aim to enable the rapid emergence of renewable energy communities in order to increase the production of renewable energy and, to encourage the appropriation of energy-related issues by citizens and businesses whose primary concern is not energy. The total budget available is 10 million euros.
In Brussels, the region has financed free support and assistance services for people with renewable energy production and sharing projects via an association with expertise in the field: the "Energy Sharing and Communities" Facilitator.
In Flanders, according to Decree stimulating sustainable energy production and climate transition modified on 15 November 2023, a large program to support renewable production and development was established.

The main support for the development of renewable energy production facilities for consumers concerns investments in solar panels. Each of the three regions has its own approach. One of the points that is problematic is the change in the investment framework and conditions. There have been regular changes in this area, and this is creating a great deal of frustration among the public. Two points create this instability but also a relative discrimination between prosumers and non-prosumers: the payment of green certificates for regions where this system still exists and net-metering, which passes on network and transport costs to non-prosumers but above all misleads citizens about the right way to self-consume their production. The aim of a support system is often to launch a technology or an investment. However, in some cases using subsidies deforms the market and makes investment prices higher.

Regions in Belgium are very small and have a similar climate. The regional diversification is more related to the political choices made to transpose the original Directive.

Bulgaria

Article 4 has been transposed into national law in Bulgaria, concretely into the Law on Energy from Renewable Sources, but with quite a long delay, transposed in 2023. It can be said that the article is transposed completely but clear and specific regulation has not yet been created through implementing rules, so the meaning of the provision remains vague.
In connection with this article, a new scheme was created to increase the use of renewable energy in the final energy consumption of the household sector by providing funding for the purchase and installation of

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solar systems for domestic hot water supply and photovoltaic systems. This scheme does not apply to heat pumps.
Openness, competition, transparency, non-discrimination and cost-effectiveness are assumed in the introduction of that scheme, but there is a lack of a mass information campaign reaching all stakeholders and the evaluation of submitted applications has not yet taken place, so it is not possible to assess these aspects of the Bulgarian support scheme at the moment.

Bulgarian law made the initial step for the development of regional diversification by adopting Article 2, paragraph 2 of the Law on energy from renewable sources, which requires a clear regulation of the rights and obligations of the local authority to carry out policies to promote the production and consumption of energy from renewable sources. This law imposes an obligation on each municipality to create a centre for administrative services, which will provide information on the procedures for the construction, and reconstruction of energy objects and facilities for the production of energy from renewable sources. The construction of the centres started in November 2023.

Italy

In Italy, article 4 was fully transposed, a few months later than the deadline, by the Legislative Decree 8.11 2021, n°199, Arts. From 4 to 17. The decree defines the instruments, mechanisms, incentives and the institutional, financial and legal framework necessary to achieve the aim of increasing the share of energy from renewable sources by 2030. The decree contains the provisions necessary to implement the measures of the National Recovery and Resilience Plan (PNRR) in the field of energy from renewable sources, according to the Integrated National Plan for Energy and Climate (PNIEC).

The Italian government applied support schemes even before the transposition of this Directive was done. Currently there is a possibility to deduct the taxes from 50% to 65% of the expenses spent for the purchase and installation of RES products. The tax deduction results in a yearly refund for the following 10 years. The incentives are transparent and accessible to all.
The only limitation is in their fiscal characteristic. In order to be able to benefit from them, one has to have taxes to pay on one's income, otherwise they cannot benefit from the tax incentives for the purchase of heat pumps, for example.

There are no special mechanisms for the regional diversification in the country, but local municipalities have a certain level of freedom in defining local targets for RES (on roofs and new building) depending on their local conditions.

Portugal

The Environment Ministry of Portugal declares that RED was fully transposed into 2 legal acts: Decreto-Lei nº 15/2022 from 14th of January 2022 and Decreto-Lei nº 84/2022, from 9th of December 2022. However, whether this counts as full transposition remains unclear. The Commission asked for further information on the matter, as there are still doubts about the full transposition. The deadline for the submission of information on the Commission's questions is the end of December 2023. Both legal acts were issued after the deadline for the transposition. Legal act No. 84/2022 sets targets for energy production from RES.

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Based on unclear transposition of the Directive, there are no known support schemes applied by government or special mechanisms established to ensure the regional diversification in the deployment of renewable electricity. Nevertheless, there are two fundamental supports for uptake of heat pumps: reduced VAT and a subsidy based on Resilience program managed by "Fundo Ambiental" (state related institute).

In addition, there are still some support schemes for renewables, mainly wind farms, established over the last decade. This scheme is called Special Regime Production, and it was aimed to ramp up the technology. As there are agreed purchase prices for this electricity, well above the usual market price, these costs are supported by the state in order to achieve the transition. There is a public discussion over the years on this topic about the lack of transparency and it's expected that this support will phase out in the coming years.

Slovakia

The Directive as a whole was transposed by Legal Act No. 363/2022 which amended Legal Act No. 309/2009 on the promotion of renewable energy sources and came into force on 01/12/2022. Unfortunately, no implementation rules were adopted to this article.

Article 4, Paragraph 1 of the Renewable Energy Directive (2018/2001) is dedicated to the creation of support schemes to reach EU targets for the share of energy from renewable sources in the Union's gross final consumption. It was not transposed to Slovak law since the Slovak government considered it a voluntary transposition and did not apply it (due to the use of "may", not "shall", in paragraph 1). The same happened with paragraphs 2, 3, 5-8 of this article. This means there are no support schemes applied in Slovakia directly linked to article 4 of RED.

Although no support schemes are available with regard to article 4, Slovakia has 2 funding schemes for the support of RES technologies which were created before the transposition of this article or by other mechanisms and their availability is limited by the time and budget. We can observe some kind of discrimination in other incentives as the Slovak government has exempted small installations up to 10kWs from tendering procedures. Additionally, special support has been established for electricity produced in installations with a total installed capacity up to 500 kW, covering various sources such as hydroelectric, geothermal energy, biogas, landfill gas or sewage treatment plant gas. Regional diversification in the deployment of renewable electricity is not applied here.

Slovenia

Slovenia transposed the entire Renewable Energy Directive, including Article 4, by adopting the Act on the Promotion of the Use of Renewable Energy Sources which came into force on 07/08/2021. There are many implementation rules to this Act but none regarding Article 4.

Several times a year, the Slovenian government publishes through its Energy Agency a Public Call for Investors to apply for support schemes with projects for electricity generation from renewable energy sources and high-efficiency cogeneration of heat and electricity. However, these schemes are not relevant for consumers.

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The legislation allows other aspects to also be considered when determining the methods of promotion and the level of support: the social aspect, environmental protection, the reduction of emissions, the preservation of cultural heritage, the preservation of nature, the use of natural materials and the promotion of employment, technological neutrality, and regional development. However, there is currently no awareness of the establishment of mechanisms to ensure regional diversification.

Spain

Spain fully transposed this article by Royal Decree 960/2020 on the 3rd of November 2020, which regulates the economic regime of renewable energies for electrical energy production facilities.
Currently, consumer-facing support schemes have not been created through the RED. Previously, such schemes existed, when the renewable electrical energy production facilities received some support for each kWh that they produced.

Regional diversification is not seen in Spain in context of the RED but local aspects are required when it comes to local distributed generation. The owner of the installation must have local characteristics in the form of a cooperative, local administration or company. At least 25 % of the capital share or 25 % of the financing necessary to implement the renewable project must be held by a minimum of four local participants.

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ARTICLE 18 - RENEWABLE ENERGY DIRECTIVE

of the Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources

Information and training

To assess the current state of national implementation of this article, partners from target countries investigated if this article has already been transposed, fully or partially; if information on support measures is made available to relevant actors and if certification and qualification schemes have been set up for RES installers.

Country	Has Article 18 been adequately transposed to provide information on support schemes to relevant actors and to ensure certification for RES installers? Yes/No
Belgium	Yes
Bulgaria	Yes – though information to consumers is difficult to access
Italy	Yes – though information to consumers is not well communicated and certification for installers could be improved
Portugal	No – The Directive has been official transposed, but this is under review by European authorities. However, laws do exist for heat pump installation certification
Slovakia	Yes – but information for specific consumers including self-consumers and vulnerable consumers is very limited
Slovenia	Partially – consumer information is partially available, and Slovenia provides a best practice example in heat pump installer lists
Spain	Yes – the Directive has been transposed, though this Article has not been directly transposed. However, consumer information does exist (though limited) and heat pump certification also exists

Belgium

Transposition of this article was executed regionally. In the Walloon Region, it was Decree of 5 May 2022, in the Flanders Region, Decree of 14 July 2023 which partially transposed RED, and in the Brussels Capital Region, Ordinance of 17 March 2022 on the organisation of the gas and electricity market.

Regarding information dedicated to consumers, each region has developed specific information, conferences, and workshops through their administration in charge of Energy and Environment. Each of

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these administrations also developed specific training and reference tools or guidelines dedicated to professionals.

Specific clusters have also been developed to enhance knowledge and experience-sharing between companies and increase the networking in the sustainable renovation and renewable energy sector. There is also a specific Federation for all companies developing their business focused on the energy transition and trough renewables systems installations.

Regarding training and certification, national association BCCA (Belgian Construction Certification Association) reinforces and monitors quality, confidence and performance in the construction sector as well as provides information, network activities and also trainings and certifications. Concerning exclusively RES, the Walloon Region, the Flemish Region, and the Brussels-Capital Region have set up a system for training and certifying reliable, quality installers for RES devices including heat pumps (RESCERT). The RESCERT training and certification are well advertised and communicated by the regions to consumers. When possible, the RESCERT certification is even mandatory to get access to the regional incentive programs. All the training programs and communication dedicated to the sector are well developed and advertised for professionals.

Much work could be improved on consumer access to information. Unless a specific communication is done by regional authorities or by consumer organisation regarding the existence of this certification, citizens don't know about it. At the moment the best way to fill that gap and protect citizens is to push authorities to request a certified installer to get access to the incentive program.

The main barrier for this certification in Belgium is the regionalized scale. This training and certification need to be done for each region, which is not efficient for an installer willing to work at national level, therefore installers sometimes reduce their territory in order to save time and money on the certification. The Brussels Capital region remains problematic due to its small size and therefore has a small number of installers.

Bulgaria

This article was fully transposed into the law on energy from renewable sources in 2023 and came into force on 13 October 2023 despite delayed transposition. The creation of specific rules for the implementation of the transposed provisions is pending at the time of writing this report, and a deadline of March 2024 has been given for one of these rules.
According to the transposed regulations, centres for administrative services will be created at each municipal administration, where requests for the production from RES will be submitted, instructions and information will be received about the procedures for the construction of energy sites and facilities for the production of energy from RES. Through its website, the Centre will publish Guidelines/Handbook containing rules for the procedures for the construction of energy facilities. This manual is prepared by SEDA (Agency for Sustainable Energy Development) under the Minister of Energy.

Information about these rules can be found in the law on energy from renewable sources, as well as on the website of SEDA. However, the above information has not yet been developed in an accessible form for the

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listed consumers - low-income, vulnerable, and renewable self-consumers. At this stage, the information is not easy to understand. There is no developed communication campaign to inform consumers in a clear and accessible language about the advantages of RES.

Special certification schemes for heat pump installers exist in Bulgaria. The list of qualified or certified installers is public and can be found on the page of SEDA.

According to the transposed provisions, SEDA has an obligation to organize information and training campaigns on support measures for the benefits and practical features of the development and use of electricity from RES. SEDA prepares a manual for the procedures for the construction and reconstruction of energy sites and facilities for the production of RES. SEDA assesses and proposes measures to ensure opportunities for end-consumers to produce energy from RES, including measures for low-income households or vulnerable consumers. SEDA prepares measures to remove obstacles to the financing of projects for the consumption of own electrical energy from RES. SEDA prepares measures to introduce incentives for building owners to create opportunities for RES consumption.

SEDA creates, maintains and updates a National Information System on the potential, production and consumption of energy from RES. This system will contain information about seminars, conferences and other events related to RES production.

The law obliges the competent authority SEDA to maintain close contacts with the municipal authorities in connection with the fulfilment of its obligations to maintain the National Information System and supply the administrative service centres in the respective municipalities with up-to-date information.

With the rules for informing the public through the information system created by SEDA and the municipal administrative centres, the information should be easily accessible, useful and sufficient, but in order to achieve this, it is necessary to organize a broad media campaign by the government and municipal authorities.

Italy

In Italy, Article 18 is transposed to Article 47 of Legislative Decree 8.11 2021, n°199. It amended existing provisions related to the training of manpower and installers of heating systems, biomass boilers, fireplaces and stoves, solar photovoltaic and thermal systems on buildings, low-enthalpy geothermal systems and heat pumps.

Information about incentives is available and provided by different sources of information, either institutional or independent, included consumers associations.

Information given by the Italian government is often quite difficult to understand by all citizens, (consumers, prosumers, low-income or vulnerable ones) and there are only a few institutional information sources to turn to. Further confusion is due to the information given by installers – as documented in BEUC's Mystery Shopping for Heat Pumps report, installers often do not provide all relevant information.

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The problem, in particular, does not lie in the difficulty of obtaining the tax relief, but in having the correct information on the technical characteristics, documentation, and actions to be taken to obtain it. Consumers do not have a counterpart (suppliers and installers) that really knows all the regulations.

Information provided online by the Ministry of Environment and Energy Security is inadequate. No specific training programs directed to consumers/public are currently being organized. If such programs were ever organized, it was at local level, episodic event, nothing structured or at national level.

According to D.M. 22 January 2008, n. 37, only companies registered in the registry of businesses are allowed to install heat pumps. The registry is available online, thus open to the public, but not completely free of charge.

From August 2013 there is also a national registry for RES system installers. These installers must have a specific qualification, obtained at the end of a special training course. However, the website is not regularly maintained. Moreover, according to Article 47 of Legislative Decree 8.11 2021, n°199, replacing paragraph 1 of Article 15 of Legislative Decree 3.3 2011 n. 28, the professional qualification to install and maintain boilers, fireplaces and biomass stoves, solar photovoltaic and thermal systems on buildings, low enthalpy geothermal systems and heat pumps, is automatically achieved by fulfilling specific technical requirements. Moreover, the owner of the business, the members and the family collaborators who have carried out continuous technical collaboration activities in a qualified RES company for at least six years shall be deemed to have the technical and professional requirements.

Portugal

The project partner from Portugal couldn't identify where Article 18 was transposed to national law. Some information can be found on the website of ADENE website - governmental institution in charge of training installers about topics such as energy efficiency, schemes support available, house energy certification, etc, but it is not easy to understand for consumers. Information provided to consumers related with this topic is not clear and easily understandable. Clearer and more detailed information is needed to facilitate consumers transition to RES.

For Portuguese installers, it is mandatory to have a certification to deal with heat pumps installation, according to the following laws: Decreto-Lei n.º 145/2017, Regulamento (CE) n.º 517/2014 and Regulamento de Execução (UE) 2015/2067. The list of certified installers is freely available to the public in the webpage of Portuguese environmental agency.

Slovakia

All paragraphs of article 18 were transposed to national law by Legal Act No. 363/2022 which amended Legal Act No. 309/2009 on the promotion of renewable energy sources and came into force on 01/12/2022. There are no implementation rules to this article.

The transposing provisions have designated the Ministry of Economy as the entity that is obliged to provide this information on its website. However, there is limited information about RES, nothing special for

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consumers, low-income ones, vulnerable ones, renewable self-consumers. There is no guidance for consumers to become prosumers or use other RES devices and no information about aspects of this topic such as advantages and disadvantages, climate needs, energy communities.

The Ministry of Economy was also designated as the entity that issues certificates for installers and the conditions for obtaining them. The validity of the certificate is 5 years. After 5 years, the installer can simply apply for an extension for another 5 years. There is no list of qualified or certified installers of heat pumps created by the Ministry of Economy.

There is an institution created by the Ministry of Economy called Slovak Innovation and Energy Agency (SIEA), which is in charge of the support scheme "Green for households". Under this scheme, SIEA maintains a list of installers who are involved in the scheme.

Under the transposition provisions, the Ministry of Economy was obliged to designate a specific organisation to be the contact point for this information, that is SIEA. Its website (www.siea.sk) is available for all users and contains basic information about support programs and some practical advice but only about energy saving, not about active prosumers and self-consumption.

Slovenia

Slovenia partially transposed this article into the Act on the Promotion of the Use of Renewable Energy Sources coming into force on 7 August 2021. More precisely, only paragraph 3 of Article 18 has been transposed. There are some implementation rules to this Act but none regarding Article 18.

The government has provided clarifications on basic concepts, explanations of sectoral regulations and answers to common questions from investors regarding the installation of RES and high-efficiency cogeneration. They are published on https://www.energetika-portal.si/podrocja/energetika/proizvodne-naprave-na-ove-in-spte/postavitev-proizvodnih-naprav-na-ove-in-spte-pojasnila-in-odgovori/Energetika portal.

The Act on the Promotion of the Use of Renewable Energy Sources (ZSROVE) tasks the Borzen Support Centre with carrying out information, awareness-raising and training activities. These programmes are implemented on a project basis. Basic information on RES can be found on their webpage but it is very basic, not in-depth, and consumers need to know where to find it. Those consumers who are not digitally literate have difficulty with access to even basic information.

At present, it is very difficult for consumers to access comprehensive information about RES. Based on two different sectoral acts - the Act on Efficient Use of Energy and the Act on Promotion of the Use of Renewable Energy Sources - two different contact points have been established to assist citizens, legal entities and the public sector: ENSVET, which operates under the umbrella of the Eco Fund for information on EE, and the RES Contact Point, which operates within Borzen. The latter was set up under Article 16(1) of the Directive 2018/2001 to provide guidance and assistance in applying for support schemes (and not under the article 18). Although it would be more efficient to consolidate information at a single point of contact, the Government has decided that, due to the volume and complexity of the content, it makes sense to separate energy efficiency and renewable energy measures and to set up two different points of

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contact. However, the RES contact point within Borzen is only for guidance and assistance in applying for support schemes.

Slovenia has a system of professional training for installers. The Regulations on professional training for installers of RES devices establish, among other things, professional training for installers of heat pumps. Although the training is optional, it aims to ensure that installers are properly qualified. Three training providers have been selected for photovoltaics, heat pumps, biomass boilers, solar collectors and shallow geothermal boreholes. A website with information on the Energy Portal is also under preparation. The training is followed by a knowledge assessment (consisting of a theoretical and practical part), then a certificate of professional qualification as an installer of installations. The certificate is valid for five years from the date of issue. The training provider keeps a record of the training provided, and the Ministry of the Environment, Climate and Energy supervises it.

The government publishes a list of companies authorised to install, maintain, repair or decommission stationary refrigeration and air-conditioning equipment and heat pumps under the Regulation on the use of fluorinated greenhouse gases and ozone-depleting substances. Heat pump installers are also listed. This list is freely available on the government website and it can provide an excellent starting point for consumers on their heat pump journey but it's hard for consumers to find a list. This can be seen as a best practice within countries reviewed.

Spain

This article has not been concretely transposed into national law. Nevertheless, there is a governmental institution, the Spanish Institute for Diversification and Energy Saving, (with abbreviation IDAE) that is in charge of informing consumers about energy efficiency, schemes available support available, etc. In addition, each Spanish district has their own administrative institution in charge on the energy efficiency and renewable energy system support schemes.

For consumers, especially vulnerable ones, it is not easy to find out where to look for the relevant information. Basic information can be found on the IDAE website but consumers need to go to their district webpage to discover the particularities of the supports, and to access to the schemes. The institutions are improving the information for consumers, at national and local level, however this information is not easy to understand for most of the consumers, it is continuously changing, and the administrative process is very complex not only for the subsidies, but also for the legalization of the installations. Clearer and more specific information is needed.

From the perspective of installers´ skills, the Royal Decree 115/2017 established the requirements also for the installations of heat pumps. For installing a heat pump, a double certification is needed, for the installer and for the company. In addition, there is a control of installed device by presenting documents signed by installer and consumers to the Ministry. Moreover, IDAE has the list of certificated installers, freely accessible by consumers.

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ARTICLE 12 - ELECTRICITY DIRECTIVE

of the Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU

Country	Has Article 12 been adequately transposed to make it easy for consumers to switch electricity contracts, including a maximum switch time of three weeks and no switching fees? Yes/No
Belgium	Yes – but there are termination fees "disguised" as sign-up fees that are not returned in the case of early termination
Bulgaria	Yes – but switching electricity supplier can take up to nine weeks and collective switching does not yet exist
Italy	Yes – but in reality, switching often takes two months, and there is little enforcement
Portugal	Yes – The only problem identified was the extra costs sometimes associated with disconnecting from a bundled offer.
Slovakia	Yes – but termination fees for fixed contracts remain very high, bundling offers do not exist, nor does collective switching.
Slovenia	Yes – but fees can be incurred when a fixed contract is broken within the first year. No bundled contracts found.
Spain	Yes – but there are sometimes 5% penalties for contract termination and consumers with bundled offers are forced to pay the rest of the year's fees in cases of early termination.

Belgium

Transposition of this article was executed regionally. In the Walloon Region, it was the Decree of 5 May 2022 which amended various energy provisions as part of the partial transposition of the Electricity Directive. In the Flanders Region, the Decree of 14 July 2023, and in Brussels Capital Region, Ordinance of 17 March 2022 on the organisation of the gas and electricity market.
Switching the supplier takes 3 weeks in Belgium, according to the federal agreement "Consumers in the liberalised electricity and gas market". This agreement came into force on 1 March 2005 and has been amended several times.

When the consumer decides to terminate the contract at the end of its term or during the period of the contract, they pay no penalties. However, in Belgium all suppliers charge a fixed fee for a contract. This annual fee is either paid in advance for the year or paid monthly. If the contract is early terminated, the consumer does not get this fee back. This can be considered as "disguised" compensation for breach of contract.

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Consumers are free to choose the type of tariff (variable or fixed) and the type of contract (fixed or open-ended). Fixed-rate offers were suspended during the energy price crisis in 2022.
Belgian suppliers do not offer bundled contracts. Energy market offers contracts on maintenance services or the installation of new equipment, but these are not linked to the energy supply.

Collective switching is allowed in Belgium. Project partner Test-Achats is promoting this kind of action and no major abusive practices in collective actions are known at this time.

Bulgaria

As early as 2019, the Bulgarian legislation (Law on Energy) introduced provisions regarding the possibility of changing the supplier of energy services. Article 95 of the law allows each consumer to choose an electricity supplier, regardless of the country in which the supplier is registered. The change is carried out up to three weeks after receiving a written request from the client and is not accompanied by additional obligations (fees) for the client.

In August 2020, with a subsequent amendment to the law on energy, it was added that when changing the supplier, consumers do not pay a penalty and the change is not accompanied by additional obligations.

These provisions are in accordance with Article 12 of Directive 2019/944. This article has been fully transposed, but the Bulgarian energy market for household consumers is partially liberalised and practically every household chooses the traditional supplier that works with regulated prices. In this sense, households have no interest and do not use the opportunity to change the electricity supplier. This process will continue until the beginning of 2026 when full liberalisation of the energy market and for household consumers is expected.

To switch the electricity supplier in Bulgaria it takes between three and nine weeks. No switching-related fees are applied here. The law gives the possibility to conclude fixed-term contracts and indefinite period contracts, but since the market is still partially liberalised, consumers do not take advantage of this possibility. The contracts are prepared in advance by the supplier and have a typical nature.

In Bulgaria, there is still no really functioning liberalised market for households, so the conditions of termination of contracts and negotiation of contract terms are still irrelevant here. Electricity contracts which are bundled with loan/leasing agreements for heat pumps do not apply at this stage in the country, nor does collective switching of electricity supplier.

Italy

Article 12 has been fully transposed to art. 7 of the Legislative Decree 8.11 2021, n°210, entering into force on 11 August 2023, much later than was required by the Electricity Directive.

Consumers have the right to change their supplier as soon as possible and, in any case, within a maximum period of three weeks from the date of receipt of the request, without discrimination related to costs, charges or timing. In the information document communicated before the conclusion of the supply

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contract, within the contract itself and in the bills periodically sent, each supplier shall indicate to its customers the ways through which it is possible to change supplier, as well as the address, including the e-mail address, to which the request must be sent.
Consumers may be obliged to pay a sum of money in the event of an early withdrawal from a fixed-term supply contract at a fixed price, provided that this charge has been disclosed, in an express, clear and easily understandable manner, both in the information document communicated before the conclusion of the contract and in the contract itself. Moreover, it has to be specifically approved and signed by the customer. The required amount shall be proportionate and shall not exceed the economic loss directly suffered by the supplier or market participant involved in a bundled offer as a result of the early termination of the contract, including costs related to any investment packages or services already provided to the customer under the contract. The burden of proving the existence and extent of such direct economic loss is on the supplier.
In practice, suppliers do not make use of the right to such compensation.
Although the maximum legal length of the switching process is set at 3 weeks, the average length, according to the partner's findings, is 2 months.

In Italy energy contracts are standardized and arranged by the suppliers. It should be emphasised that energy contracts in Italy are two-sided: as a rule, there are 'general terms and conditions', which stipulate an open-ended commitment for the energy service itself, plus a fixed duration of the economic conditions at which the service is provided. This means that the supplier undertakes to supply energy for an indefinite period at economic conditions that are essentially valid for one or two years, in the case of fixed price offers. Three months before the economic conditions expire, the supplier notifies the customer of the new economic conditions that will apply. The customer has the right to withdraw if he does not like them by changing offer or by changing provider directly.
Currently, based on market research, electricity contracts bundled with loan/leasing agreements for heat pumps aren’t available. Nevertheless, they were present in the past with the obligation of consumer to pay all remaining instalments in one sum if they decided to switch to another supplier.

Collective switching is allowed, and no barriers were observed.

Portugal

The Directive was fully transposed by the DL 15/2022. There was a delay regarding the defined deadline. The act addresses the full electrical national system, and clearly mentions the right to switch and switching fees if applicable.

The standard period for switching the electricity supplier takes 5 workdays, but the switch can occur in a period up to 3 weeks.

In general, the switching-related fees are not applicable. In special cases where a consumer avails of self-consumption and a smart meter is required, these fees used to be applied but with the growing dissemination of smart meters, there are no costs even for this group. The cost will only apply if there are technical changes for the installation.

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Fixed price contracts are the standard in Portugal. The price is usually reviewed in January. Consumers are free to choose from multiple suppliers, and several comparison tools are in place to help them. The contracts are standard per provider and very similar.
Contracts with penalties for consumers before the expiry of the defined period are very rare nowadays. There's an obligation by the suppliers to provide a standardized information sheet when the offer is presented which covers the penalties mentioned. Consumers can choose between several options, but it's a closed contract, not open to negotiations on terms. Related to this, there are contracts with added services: in these cases, penalties apply if consumers leave before the established deadline – but only for the additional service(s). Consumers can change supplier but the obligation to pay for the contracted services remains.

Bundled contracts are common, for heat pumps, PV installation or electrical mobility chargers' purchase/installation. The termination fees vary but are mainly related to the "extra" energy bundled service/product. It's a growing business approach, that promotes energy transition in many cases, but it's not always clear for consumers the midterm cost when choosing such option and the obligation it carries.

Collective switching is possible in Portugal and the consumer organisation DECO PROTeste has already carried it out in three cases with more than 100,000 switches. It was a major mass collective switch, and no serious obstacles were identified during the process.

Slovakia

The Directive as a whole was transposed by Legal Act No. 256/2022 which amended Energy Act No. 251/2012 on the promotion of renewable energy sources and came into force on 1 October 2022. There is the implementation rule to this Act No. 24/2013.

The Energy Act states that the switch of the electricity supplier must be done no later than 3 weeks after the application is made to the distribution operator. But if consumers agree with the new supplier about the starting date of the contract, the application must be delivered to the operator not later than 21 days before this date, otherwise the application is denied.

For switching the supplier no switching-related fees can be applied, it is forbidden by the Energy Act. The Energy Act states the possibility of fixed-term contracts and indefinite period contracts, but suppliers offer only fixed–term contracts without consumers' possibility to change it.

The amount of penalty in case of termination the contract before the fixed period is decided independently by each supplier. It can be up to 200 euros, which is the price of half year consumption of many households. The penalty is set in the contract, which consumers can´t negotiate.

Suppliers in Slovakia don´t offer any types of electricity contracts which are bundled with loan/leasing agreements for heat pumps and no special legislation regulates it.

Collective switching of the supplier was stated for the first time in Legal Act No. 256/2022 from 01/10/2022. It has not been applied yet.

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Slovenia

Article 12 has been fully transposed into the Electricity Supply Act (Official Gazette, No. 172/21) and came into force on 13 November 2021, with the delay of transposition of almost one year. The provisions of Article 12 of the Directive 2019/944 were more or less verbatim copied into Electricity Supply Act.

The technical implementation of the supplier switching procedure is specified in the System operating instructions for the DSO. There are no other implementation rules existing in relation to this article.

The electricity operator who receives a request to change the supplier or aggregator (from the consumer or the consumer's supplier) must do everything necessary so that the end customer can start executing the electricity supply contract with the new supplier or the aggregation contract with the new aggregator no later than 21 days after submitting the complete request. After 1 January 2026, the switch will have to be made within 24 hours after submitting the complete request, on any working day. It should be noted, however, that Slovenia has had capped electricity and natural gas prices for almost a year now, so there is virtually no switching of suppliers. The government has just extended the price cap until the end of 2024. The Electricity Supply Act clearly states that electricity operator or other electricity company cannot charge final customers for switching supplier or registering a contract with an aggregator.

However, the supplier or aggregator may charge an exit fee to final customers if the customers voluntarily terminate a fixed-price electricity supply contract concluded for a specified period before its expiry, provided that the exit fee forms part of the contract concluded voluntarily by the customer and that the end customer is clearly informed of the exit fee before the conclusion of the contract. The condition of a fixed-term contract shall also be deemed to be fulfilled where the contract with the supplier or aggregator is concluded for an indefinite period, but under such a contract the supplier or aggregator provides the final customer with a fixed price for a limited period of time.

For household customers, the above applies only if they terminate the contract less than one year after the contract was concluded (early termination of the contract). In addition, the act provides that a household customer may terminate a supply contract without notice due to a switch of supplier. If the termination takes effect earlier than one year after the start of the contract, the customer shall bear the consequences provided in the contract for early termination of the supply contract.

If the household customers terminate the supply contract more than one year after its conclusion, they don't pay a penalty, compensation, indemnity or other payment. All above mentioned fees are stated in the contract, general terms and conditions or the pricelist of the supplier.
Consumers can choose to conclude a fixed-term contract or a contract for an indefinite period, but it is typical that consumers cannot influence other content of the contract. They cannot negotiate the terms of the contract and have to sign it as it is prepared by the supplier.
No types of electricity contract which are bundled with loan/leasing agreements for heat pumps have been found on the Slovenian market and no special legislation regulates it.

Collective switching is allowed in Slovenia. There are no regulatory or administrative barriers to collective switching. The only execution of collective switching as far as it is known has been done by project partner

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ZPS (three times). Some abusive practices were noticed during switching campaigns when representatives of the electricity supplier went door to door offering consumers the contract pretending that it was a campaign by ZPS.

Spain

Article 12 is implemented in Spanish regulations in the Electricity Sector Law of 2013, with the modification of Article 43 from March 2022, where the 21-day clause for switching is included. The same article ensures that switching supplier does not result in fees.

The CNMC (National Markets and Competition Commission) is an independent regulatory body in charge of preserving, guaranteeing, and promoting the correct functioning, transparency and the existence of effective competition and efficient regulation in all markets and productive sectors in benefit of consumers and users. It monitors electricity supplier changes and, according to their latest report, the average switching time is five days.

In practice, consumers have contracts of indefinite duration since they all have automatic renewal clauses. In practice, consumers have contracts of indefinite duration since they all have automatic renewal clauses. Consumers cannot choose or customize the contract and have to accept the one proposed by the electricity supplier. Consumers can choose the particular conditions of the contract (the specific tariff) that energy suppliers offer to them.

The regulations allow penalties, but sector regulations establish a maximum penalty for the electricity sector, which is 5% of the value of the energy pending consumption until the end of the year. The pending energy is calculated based on official average profiles. All companies that apply penalties do so using that 5% formula. But it is common to have no penalty since that penalty is also not very relevant. It is necessary to read the contract to find out if you have it or not and its amount (the 5% rule). The consumer has no opportunity to negotiate this.
The electricity suppliers have made attempts to add VAS (value added services) to their contracts with extra products such as telecommunications, gas boilers and maintenance services. If the consumer cancels such a bundled contract, they must continue to pay for the whole service until the end of the year.

Bundled contracts with heat pumps do not yet exist in Spain.
Collective switching of electricity suppliers is allowed in the country and has been done by project partner OCU.

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NATIONAL RESILIENCE AND RECOVERY PLANS AND REPOWER EU PACKAGE

Project countries investigated whether National Resilience and Recovery Plans include any provision for increasing roll-out of renewables to consumers, particularly via public subsidies and financing, and if there have been any actions taken at the national level in light of the REPOWER EU package that aim to increase the penetration rate of heat pumps.

National Resilience and Recovery plans

Belgium

In Belgium, stimulation of heat pump installations is already established in the National Climate Plan which was agreed between the three regions for the period 2021-2030. Therefore, it was not needed to add it in the Resilience and Recovery Plan.

Bulgaria

The Bulgarian Resilience and Recovery Plan includes provisions for increasing roll-out of renewables to consumers, but heat pumps subsidies have not yet been created as part of this plan.

Italy

In the context of the Resilience and Recovery Plan´s aim to promote the country's green transition by focusing on energy from renewable sources, heat pumps have been identified as one of the solutions to be encouraged with an energy efficiency policy also for combating energy poverty and climate change.

A total of 1.25 billion euros has been allocated for these interventions, with the aim of strengthening investments in the main supply chains of the ecological transition, also encouraging industrial processes and new entrepreneurship.

Portugal

Under the Portuguese Resilience and Recovery Plan, government introduced 2 types of funding for RES, one is for the general public and the other is dedicated to vulnerable consumers.

Slovakia

There is no special provision for increasing roll-out of renewables to consumers in the Slovak Resilience and Recovery Plan, only to companies and commercial buildings.

However, there is a chapter for renovation of buildings with dedicated section on the renovation of family houses to improve their energy performance, which became the basis for the financial scheme “Renovate your house”.

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Slovenia

The Slovenian Resilience and Recovery Plan does not include any provision for increasing roll-out of renewables to consumers. At the moment the funds for subsidies are provided through a contribution on the basis of the use of energy for energy efficiency improvements, levied on district heat, electricity and solid, liquid and gaseous fuels. The funds are also provided on the basis of the Decree on the Climate Change Fund Spending Programme.

Spain

The Spanish Resilience and Recovery Plan intended to increase renewables in households, which led to adoption of Royal Decree 477/2021 with subsidies for the installations of RES Technologies with different financial support for different devices and installed power.

REPOWER EU package overview

The REPOWER EU package is in the process of public discussion in **Bulgaria**. In **Portugal**, **Slovakia** and **Slovenia**, governments have not taken any actions for the increase of heat pumps based on the REPOWER EU package. **Belgium**, in its Wallon Region will use funds from this package to support the deployment of renewable energy production units in 4,000 public housing units but heat pumps are not specifically mentioned. The funds available from the REPOWER EU package in **Italy** are intended for energy efficiency and energy saving projects for public buildings, not for energy efficiency projects for households. Within this framework, there will be no actions for the penetration of heat pumps to households from this package. In **Spain**, funding from the REPOWER EU package will have a positive impact on heat pump roll-out, as a support program for the renovations in buildings that manage to reduce non-renewable energy consumption by at least 30% has been created, as well as a support program for the renovation of buildings and for actions to improve energy efficiency in houses, defined in Royal Decree 853/2021.

Provisions and/or actions to promote the roll-out of heat pumps		
Country	Resilience and Recovery plan	REPOWER EU package
Belgium	X	X
Bulgaria	✓	X
Italy	✓	X
Portugal	✓	X
Slovakia	✓	X
Slovenia	X	X
Spain	✓	✓

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ASSESSMENT OF FUNDING SCHEMES

Belgium

The incentive mechanism in Belgium is regionally divided and therefore 3 separate systems are in use.

- Flanders: Incentives are available for all kinds of RES systems including air to air heat pumps. The installer must be RESCERT certified, and the level of incentive is related to the technology and the family income. A digital simulator allows any citizen to estimate the incentive they could get.
- Walloon Region: The incentive program is only accessible after an energy audit to make sure the correct priorities have been identified by a professional. An exception has been made for some investments (between 1/7/2023 – 31/12/2025) for heating devices using renewables (solar thermal for hot water, heat pump for hot water, heat pumps for heating and pellet stoves).
  Subsidies for heat pumps for heating range from 1,500 to 9,000 euros depending on family income. At the moment, air to air heat pumps are not covered since the Regional Authority considers that it could also be used for cooling purposes.
- Brussels Capital Region: the incentive program is called "Renolution" since 2022. The grant for a heat pump to heat an apartment or a house varies between 4,500 to 5,000 euros for an air to water system and from 5,800 to 6,500 euros for a ground to water system. The level of incentive is the highest for low incomes and the lowest for highest incomes. At the moment, air to air heat pumps are not covered since the Regional Authority considers that it could also be used for cooling purposes. An additional support is also available for low temperature radiators if radiators need to be replaced. This subsidy varies from 75 to 200 euros for each piece. Installers have to be RESCERT certified without exception.

In addition, a reduction in VAT of 6% for certain technologies has been introduced for 2022 to alleviate the crisis in energy prices, even for buildings less than 10 years old. However, probably for budgetary reasons, this measure expires at the end of 2023 and will probably not be extended.

The loan system is also divided by region:

- Flanders: A specific energy loan has been modified in September 2022 and is now called "my renovation loan". This loan is provided by the region with 0% interest rate under specific conditions and with a priority on low income and people in precarious situations. The maximum amount of the loan is 60,000 euros. To benefit from a loan, a single person is allowed to have maximum yearly income of 51,840 euros.
- Walloon Region: The Social Credit Walloon Society (SWCS) offers a 0% interest rate loan for renovation work which, depending on the loan formula, may entitle the consumer to subsidies. One of these formulas is called Rénoprêt. It is an interest-free loan for work that does not require an energy audit. The conditions to access this loan are quite detailed.
- Brussels Capital Region: The Ecoreno Loan is provided by the Brussels Region. This loan is divided in 2 different forms and has various conditions.

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Although each region communicates its support scheme to consumers, the main obstacles currently identified in all regions are:

- the administrative complexity of submitting a premium application.
- the complexity of the technical conditions required for access to premiums, since this part is not accessible to the public due to a lack of knowledge.
- the annual changes to incentive schemes, which often force applicants to rush as they are dependent on the deadlines set by installers over whom they have no control.
- none of the regions have clearly communicated the level of insulation required to install a heat pump, or the price differences between gas/oil and electricity. Except for homes that are already heated with electricity, the insulation of the home should be a prerequisite for the installation of a heat pump, and there should be a simulator that allows comparing bills before and after the investment, depending on the energy used.

The way to improve and increase the uptake of heat pumps in Belgium is to reduce the gap between electricity prices and fossil fuels prices, to facilitate insulation services, facilitate access to finances, reform VAT on climate-friendly investments, provide better information and gather all processes and aspects in a one-stop-shop approach.

Bulgaria

Bulgarian consumers are put in a difficult position when switching to heat pumps. The government does not provide any subsidies. Households really need the state support to switch from gas heating, but no help is coming. Even incentives in the form of state loans with better interest rates are not allowed for Bulgarians.

Loans are provided by private banks. Financing is provided to individuals, through the Energy Efficiency and Renewable Sources Fund, in case they meet the requirement for a detailed energy audit, allowing energy analysis and selection of energy-saving measures.
All energy efficiency projects approved and supported by the "Energy Efficiency and Renewable Sources" Fund must meet the following requirements: the project must implement established technology; the value of the project must be between BGN 30,000 and BGN 3,000,000; the equity participation of the borrower must be no less than 10%; loan repayment term is up to 10 years.
It should be noted that this fund does not provide preferential conditions for individuals (consumers), which is why it is not popular. The requirements are the same for individuals (consumers) as well as for municipalities, schools, and medical institutions.

Italy

Italy decided to choose the way of state support for the uptake of heat pumps by implementing tax deductions. For the winter heating, there is a 65% tax deduction of the expenses sustained for the purchase and installation of these products, within a maximum spending of 46,153 euros. The tax deduction results in a yearly refund for the following 10 years.

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The tax relief is granted for partial or complete replacement of existing air conditioning systems, while it's not granted for new buildings or for properties without a heating system.

To obtain the benefit, the payments have to be done using the SEPA system, entering the data of the supplier and the taxpayer. This allowed the tax administration to collect the 8% (from 2024 the 11%) of the total amount as an advance payment on the annual tax due by the supplier.
The compliance with the technical regulation is verified by Enea Agency (National Agency for new technologies, energy, and sustainable economic development). At the end of the intervention, suppliers have to send to the Agency the energy performance certificate of the property and the descriptive sheet of the interventions.

Starting from 2025, the tax deduction percentage will be reduced to 36% within a maximum spending of 48,000 euros. The tax deduction is available for 'natural persons'. In particular, the tax deduction is for owners and holders of a real right of enjoyment such as usufruct, use, residence, or surface; lessees or borrowers (subject to the consent of the legitimate owner) for properties not included among capital goods.

As assessed by the project partner, the tax deductions in force are adequate to support and incentivize the consumers. However, in terms of accessibility and transparency, considerable difficulties exist for citizens to access them because of the documentation needed, and the procedures that follow. The legislation, continuously under revision, doesn't provide any certainty. It is requested to consolidate the current tax relief making it structural and permanent, instead of submitting it to continuous annual extensions.

The Italian government´s help to consumers does not include any type of state *loans* for the installation of heat pumps, however, as mentioned under the dedicated section on Article 4, there are some financial incentives via tax breaks for RES installations.

Portugal

There have been two supports implemented for the installations of heat pumps:

- reduced VAT and
- subsidy based on Resilience program managed by "Fundo Ambiental" (state related institute).

The programme "Fundo Ambiental" has had several revisions with good acceptance and participation by consumers, and the program had finished as the funding was fully used.

There were 2 types of funding by "Fundo Ambiental", one general to all public and another one aimed at vulnerable consumers.
The information needed from consumers to have access to these subsidies is not easy to understand, and the application has some complexity. In addition, the application is only available online which is not accessible to all consumers. With the exception of vulnerable consumers, to access these subsidies, consumers need to first install the equipment or go through a refurbishment and only at the end can they apply for the subsidies, without knowing if they will be approved. This is a weakness of this programme.

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Other than simplifying the most recent support programs, it would be welcome in Portugal to get a fiscal deduction for all consumers who install a heat pump. The investment would be recognised on the consumers´ fiscal report and would be a way of broadening and simplifying the scope of the impacted consumers.

The Portuguese government does not provide any state loan, only subsidies. Even though the state is not directly involved in loans, a special regime for private loans directed at renewable energy investments is in place with more interesting rates than an all-purpose one.

Slovakia

There are currently 2 financial schemes with subsidies also for heat pumps:

1. **Green for households** (Zelená domácnostiam)

The program has been existing intermittently from 2015 but was unexpectedly stopped between March and October 2023. However, a new call has been announced. The new scheme should run from the beginning of 2024. In addition, there is a promise that all installations which were done from the 30th of October 2023, can register and ask for this subsidy in 2024 when registration opens.
All previous calls from this scheme were available for everyone with the same amount of support, excluding people living in the Bratislava region. The new scheme will be open for everyone, regardless of region, without diversification of support due to vulnerability or energy poverty.
The amount of the grant in previous calls was maximum up to 3,470 euros, now increased to 3,800 euros per device. For households that live in a polluted environment and stop using solid fuel appliances, an additional increase of 15% will be possible.

2. **Renovate your house** (Obnov dom)

This program is opened twice a year (March and September), but with limited financial sources, and changing conditions from call to call.
It must be combined with insulation or window replacement (not possible only for the purchase of the heat pump), which disqualifies many people who do not need such renovation or those who immediately need to replace their solid fuel heating system and do not have the time or money to implement other measures.
The amount of the support for the device is up to 75%, but “eligible costs” for the heat pump are defined as 1,092.50 EUR/1 kW, to a maximum 13,110 EUR. There is also the condition that applicant must implement other measures in addition, such as insulation or replacement of windows. This support is available for everyone without priority to vulnerable consumers.

In the support system of Slovakia, there are no state loans for heat pumps for family houses, only for the purchase of houses or apartments for specific groups of people (e.g. single parents and consumers with disabilities) and there are state loans for renovation of multi apartment buildings where the purchase of heat pumps is part of the renovation.

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Alongside the issues of unpredictability and accessibility, there should be differentiation for newly built homes. Meanwhile, for vulnerable consumers, 100% subsidies should be made available, similar to the Eco Fund in Slovenia and its tripartite contract system that avoids upfront costs to consumers. Only installers verified by the state should be contracted to carry out these works.

Slovenia

At the time of report writing, financial incentives (grants) provided by the ECO Fund were available to citizens for the transition to renewable energy sources and for improving the energy efficiency of buildings throughout the Republic of Slovenia. Currently, both credits and subsidies are available for the installation of heat pumps.

The installation of a heat pump may only be carried out by a contractor or subcontractor who is registered in the register of authorised companies for the maintenance and installation of stationary refrigeration and air-conditioning equipment and heat pumps with the Agency of the Republic of Slovenia for the Environment, and has been issued with the relevant certificate.

The eligible costs for subsidies include the purchase and installation of one heating heat pump per dwelling. The amount of the grant is up to 20 % of the eligible costs of the investment, but not more than:

- 2,500 EUR for a water-to-water or brine (such as ground source)/water type heat pump and
- 1,000 EUR for an air-to-water type heat pump, when the heating system is installed in the building for the first time or if the heat pump has not replaced the old heating system which provides heat to the central heating system of the building.

The amount of the non-repayable financial incentives is up to 40 % of the eligible investment costs, but not more than:

- 4,000 EUR for a water-to-water or brine (such as ground)/water type heat pump;
- 2,500 EUR for an air-to-water heat pump, when replacing an old combustion appliance providing heat to the central heating system of a building with a new heat pump in areas of municipalities where no Air Quality Plan Decree has been adopted.

The amount of the non-repayable financial incentive is up to 50 % of the eligible investment costs, but not more than:

- 5,000 EUR for a water-to-water or brine (such as ground source)/water type heat pump;
- 3,200 EUR for an air-to-water heat pump, when replacing an old combustion appliance providing heat to the central heating system of a building with a new heat pump in the Municipality which has adopted an Air Quality Plan Decree.

In case the applicant applies for at least 3 measures with the same application, which have been implemented in the same older building, they will be eligible for a higher grant incentive.

The grant may only be awarded for residential buildings or residential parts of multi-purpose buildings, owned/possessed exclusively by a natural person(s).

Consumers are well aware of the fact that the ECO Fund offers subsidies for investments in RES. The documentation to be submitted by the consumer is very extensive and the application is complex. In practice, the application is most often prepared for the consumer by the contractor.

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One of the key barriers for consumers to switch to renewable technologies is the financial burden of such an investment. In addition to the size of the investment itself, another barrier is the fact that in most cases consumers have to pay the full cost of the investment upfront. The ECO Fund's resources, both in the form of subsidies and loans, are best used by households with the (highest) incomes. In order to facilitate access to financing for the transition to renewable energy and energy efficient appliances for all households, it would be necessary to tailor the calls for subsidies and credits more to average and lower income households. Higher subsidy percentages per investment and the possibility of introducing at least partial prepayments of subsidies would be welcomed.
It is strongly recommended to change this subsidy to avoid upfront payment (rather than only after the investment has been made), Higher subsidies for low- and average-income households and accessibility to all, regardless of the municipal act or the local energy concept determining another preferred heating method in the area.

Loans for the installation of devices and systems to increase the use of renewable energy sources for space heating and hot water preparation are also available from the ECO Fund. Calls for tenders are often repeated, with almost the same content.
Interest rates: - Variable interest rate; 3-month EURIBOR + 1.0% or - fixed rate: 2,8 %. The repayment period is a maximum of 10 years. The maximum amount of the loan that may be granted is the amount of the investment costs, with a minimum amount of EUR 1,500. The credit may be drawn down in one or two instalments after signing the credit agreement. The time limit for completion of the investment is 12 months from the date of conclusion of the credit agreement, which may be extended for a maximum period of 6 months. In addition to the loan, the beneficiary is also eligible for a subsidy from the ECO Fund.
A review of bank offers of financing for home energy renovation and other eco-oriented investments in 2022 showed that there are not many banks offers specifically for investments in RES. Most banks do not yet offer loans that would incentivise households to invest in RES with more favourable conditions, such as lower interest rates and other costs.

Spain

The Spanish Royal Decree 477/2021 established the schemes for heat pumps (and other RES technologies). The amount of support depends on the installed power of the device. For each type of installation, the decree establishes an amount that corresponds to each kW of power that the device has but the maximum limit is 3,000 euros.

This subsidy is available for everyone, until the budget runs out. The scheme is very complicated because the timing of calls is different in various regions of the country. People have to look for information when it is open in the region they live in. Administration processes are also very difficult even for installers and experts.

State support in Spain does not include any state loans for the installation of heat pumps. However, there are some loans for RES installations offered by private sector.

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What do consumers say?

A joint survey made by consumers´ organisations in **Belgium, Italy, Portugal and Spain** with 4,168 respondents showed that 88.8% of people surveyed in Portugal have never applied for any subsidy, similar to Spain where 82,5% of respondents have not done so, with 63,5% of Italians having never done it. In Belgium the rate was 50%. The main reasons were identified as the lack of information about the subsidy itself and how to get it, complexity and bureaucracy in the process and unaffordability of the device even with this subsidy. When asked about the main barriers to adopting greener behaviour, 3% of respondents said that it did not concern them because they were not interested and 14% said that they did not experience any barriers. Among the respondents who perceive barriers to adopting greener behaviours (83%), the main barriers are 'financial aspects' (cited by 70% as the main barrier), 'it is difficult to be well informed about green solutions' (10%) and 'it takes a lot of effort' (6%).

In **Bulgaria**, a survey shows that air-to-water heat pumps are still an insufficiently popular method of heating and cooling. According to the data, the most popular system in the country is the air conditioner (i.e. air to air heat pump), and 51% of those who took part in the survey would choose it again for heating.
In Bulgaria, air conditioners are the most preferred types of heating and cooling, ahead of central heating. Energy efficient, affordable, practical, with the possibility of being used both in summer and in winter - these are the main reasons for the respondents to choose such a solution.
More than 50 percent of respondents are considering replacing the heating system in their home in the next 18 months, and every second of them would again bet on air conditioning.
Only 17% prefer other forms of heat pump, which makes Bulgarians the least inclined in the Central and Eastern European region to switch to this technology. The main reason for people's choice is the expectation of energy savings from both solutions.

In **Slovakia**, two thirds of people involved in the survey, which mapped the experience and knowledge of Slovaks about state subsidies for heat pumps, did not have an overview of the available schemes. Up to 85% of respondents did not find the subsidies offered easy to understand and accessible. The remaining 15% relied on information on the internet or on installers who also arranged the subsidies. The main reasons why consumers are dissatisfied with current state of subsidies were defined as lack of information, high administrative burden, bureaucracy, complex conditions to access, unclear financing conditions, and limited grant size.

In **Slovenia**, ZPS recently conducted a survey of more than 1,700 consumers. A third of all respondents already heat with a heat pump and 68% of them used state subsidies or loans, or both, to buy and install it.
More than half of the respondents are consumers who currently heat with a different source of energy then an HP, consider switching to a heat pump but intend to finance it with an ECO Fund subsidy or an ECO Fund loan, or both, which means that state (co-)financing is crucial. Although only 12% of subsidy applicants found the whole process very complicated and needed help to complete the application, 68% of all respondents think that the conditions for subsidies should be improved.
While 73% could not answer the question whether subsidies are easily available to anyone who wants to install a heat pump for heating, only 11% of respondents believe that subsidies are easily accessible to all.

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Among all respondents, 90% are not aware of any “one-stop-shops" where they can find all the information needed on the topic of heat pumps. Generally, this survey showed that subsidies should be more accessible and are crucial for a swift HP uptake, that the conditions for granting them should be improved and, above all, that the conditions should be clearer and easier to understand.

CONCLUSIONS

The main aim of this report was to provide detailed analysis of the implementation state of specific EU legislation and the assessment of existing funding schemes for the promotion of heat pumps in target countries.

It can be concluded that, after some delays (in some cases quite long), all target countries transposed Directive 2019/944 and Directive 2018/2001. However, as detailed, the transposition of the RED (2018/2001) in Portugal is under review.

However, specific articles of these Directives, reviewed in this deliverable, were officially transposed in some Member States while taking advantage of the right to not implement certain articles depending on their wording. As such, many Member States reviewed did not use article 4 of RED to implement any support schemes for consumers to increase using of renewable energy in households – but as documented, this does not mean that other RES support schemes do not exist.

Certification rules appear to be applied in target countries but the quality of installers´ services is often not monitored and lists of installers, if provided in countries, do not have a qualitative value (except in Slovenia, which serves as a best practise). This makes it an obstacle for consumers to get trustworthy information before they decide to go for a heat pump.

Based on our assessment, the obligations of Member States to provide information to consumers are implemented to a very low level and particularly impact vulnerable consumers. This was also confirmed by the results of a survey carried out in project countries where respondents cited lack of information as one of the main reasons for not using the subsidies.

Member States have adopted similar rules for the switching of electricity contracts, however, some suppliers have still found ways to make switching more difficult for consumers, as documented.

Few project countries took advantage of new tools and opportunities in the form of National Recovery and Resilience Plans and the REPOWER EU Package to facilitate and accelerate the green transition through the deployment of heat pumps.

Ultimately, greater efforts could be made by most Member States reviewed in this project to implement European legislation with its intended level of ambition. This confirms the findings of the national consumer organisations involved, who have found many consumers reluctant to switch to renewables due to a lack of information, complex administrative processes and relatively high financial burdens.

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