



# ComAct

Community  
Tailored Actions  
for Energy Poverty  
Mitigation

## Toolbox of financing models for energy-poor households



A research consortium  
coordinated by  
HUMANO



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## Contents

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Executive Summary .....	5
1. Introduction .....	6
2. Methodology .....	8
3. Available financing schemes in the target countries .....	9
3.1. Commercial banks .....	9
Loans .....	9
Bonds .....	18
3.2. Specialised funds .....	19
Loans .....	19
Cessions .....	22
Grant schemes .....	23
Energy performance contracts .....	30
Energy efficiency obligation schemes (Art.7/EED) .....	31
Emissions trading .....	33
Low-income financial support (fuel subsidies) .....	34
Energy Poverty Alleviation .....	37
Clean air programmes .....	39
4. Most relevant renovation programmes in the target region .....	41
Live Warmer .....	59
5. Conclusion and next steps .....	73



## Executive Summary

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The current report presents the available financial models supporting energy-efficient renovation of multifamily residential buildings in the five target countries of the ComAct project – Bulgaria, Hungary, Lithuania, North Macedonia and Ukraine. They are collected and described with the specific goal of identifying individual approaches to the inclusion of households suffering or at risk of energy poverty in national and local renovation policies, taking into account the scope, volume of investment and expected energy savings. We also aim to provide a reliable overview of existing support schemes in the region to support future policy analyses, and to lay the foundation for design of innovative financial instruments specifically targeted to meet the needs of vulnerable segments of society.

The financial models are presented alongside a coherent typology of potentially applicable financial schemes and instruments. These cover schemes offered and managed by commercial banks and specialised funds (loans, guarantees, forfeiting, bonds), existing grant schemes, application of energy performance contracts and energy service company (ESCO) schemes, chauffage (long-term energy supply) contracts, on-bill recovery, on-tax recovery, leasing schemes, white/green certificates, energy efficiency obligation schemes, emissions trading, dedicated financial support to low-income/vulnerable households (fuel subsidies), and specialised energy poverty alleviation mechanisms. For each of these financing schemes and instruments, various parameters were studied, considering the duration, eligible recipients, managing bodies, volume of funding, contribution requirements and impact.

As an outcome of the review, the most ambitious and promising financing schemes and mechanisms were selected and analysed in further detail. Additional examples from Central and Eastern Europe are also collected and described to provide a more complete picture of the applicable policy and financial approaches in the region. Information about the available financing models is easily accessible online at [comact-project.eu/toolbox](https://comact-project.eu/toolbox). The collected information will serve as a basis for developing new or upgrading existing financial support schemes targeting improved access for energy-poor households in national and local policy actions, to be tested and implemented in the ComAct pilot regions.

## 1. Introduction

With the Clean Energy for All Europeans legislative package,<sup>1</sup> the European Commission has proposed a set of measures to tackle energy poverty through energy efficiency, safeguards against interruption of supply and better definition and monitoring through integrated national energy and climate plans (NECPs). As a result, the EU's legislative context on energy poverty has undergone several changes. Energy poverty is addressed in the new Energy Efficiency Directive (2018/2002),<sup>2</sup> the new Energy Performance of Buildings Directive (2018/844),<sup>3</sup> Directive (EU) 2019/944 on common rules for the internal market for electricity<sup>4</sup> and the Regulation on the Governance of the Energy Union and Climate Action (2018/1999).<sup>5</sup> The latter explicitly stipulates that Member States should “assess the number of households in energy poverty taking into account the necessary domestic energy services needed to guarantee basic standards of living in the relevant national context” (Article 3). If a significant number of households are in a state of energy poverty, the NECP should include a national indicative target for energy poverty mitigation, a mechanism for monitoring progress and information on policies and measures to address the problem.



*The condition of the building stock exacerbates the financial situation of poor households, increasing the heating costs and lowering the value of their properties. Photo: EnEffect*

<sup>1</sup> See: <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

<sup>2</sup> Official Journal of the European Union (2018) Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2002&from=EN>

<sup>3</sup> Official Journal of the European Union (2018) Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0844&from=EN>

<sup>4</sup> Official Journal of the European Union (2019) 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 (recast). Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0944&from=EN>

<sup>5</sup> Official Journal of the European Union (2018) Regulation (EU) 2018/1999 of the European Parliament and The Council of 11 December 2018 on the Governance of the Energy Union and Climate Action. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1999&from=EN>



*A renovated and a non-renovated apartment building in Kula, Bulgaria. The dwellings in the non-renovated building are quickly losing their market value.*

At the same time, while current levels of renovation of buildings are insufficient to achieve the objectives of the Paris Agreement, the measures in buildings occupied by energy-poor users are the most difficult to apply. This is why, as stated in Directive 2018/2002, particular attention should be paid to the accessibility of energy efficiency measures for consumers affected by energy poverty. To this end, Member States are advised that the “share of energy efficiency measures under their national energy efficiency obligation schemes, alternative policy measures,

or programs or measures financed under an Energy Efficiency National Fund [...] be implemented as a priority among vulnerable households, including those affected by energy poverty and, where appropriate, in social housing” (Article 7). Under Directive 2018/844, Member States may define their own criteria for taking into account energy poverty and identify specific actions to alleviate it, which should be outlined in their long-term building renovation strategies. Each strategy should include a review of policies and actions targeting the worst-performing segments of the national building stock, as well as measures that contribute to reducing energy poverty (Article 2).

Preliminary analysis by ComAct, however, revealed that despite similarities in the building stock and ownership models, there are still very few examples of financing mechanisms targeted specifically at energy-poor households. In the five participating pilot countries – Bulgaria, Hungary, Lithuania, North Macedonia and Ukraine – different financing approaches are applied based on the legal framework, financial capacities, local experiences and even the “energy culture” of the society – ranging from 100% grant financing to energy service contract schemes. In most of these countries, subsidy schemes for renovation of multi-family buildings are already in place; however, potential beneficiaries of these public grants are all the homeowners in multi-family buildings, and not just the low-income owners. In almost all countries, grants cover only a part of the investment costs and the rest must be provided by homeowners, so private financial resources should be used. While co-financing for middle- and high-income owners can be provided through various financial instruments, for low-income owners and those suffering from energy poverty, national schemes should provide a different type of support so that they can be efficiently involved in the programmes.

While this situation suggests vast potential for exchange of good practices, it also necessitates differentiated local approaches for improving of the design of existing financing schemes, especially in terms of providing better accessibility for energy-poor households and combining them with means of financing that are not yet available in the targeted markets. With the goal to better understand if and how energy-poor households use the available financing schemes and what are the barriers in case of limited access, a thorough analysis of the existing instruments and the experience from their implementation was performed during the first four months of the ComAct project. The research focused not only on end-energy-use subsidies, which are common for low-income households in the ComAct target countries, but on measures for improving the energy efficiency of the building stock, as a complete review of the applicable financial mechanisms, as presented below.



## 2. Methodology

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The toolbox of financing models for energy-poor households is based on a straightforward methodology developed with the active contribution of all ComAct partners. A common template was prepared to collect information, including a coherent typology of potentially applicable financial schemes and instruments, mapping schemes offered and managed by commercial banks and specialised funds (loans, guarantees, forfeiting, bonds), existing grant schemes, energy performance contracts, ESCO schemes, chauffage (long-term energy supply) contracts, on-bill recovery, on-tax recovery, leasing schemes, white/green certificates, energy efficiency obligation schemes (under Art.7/EED), sources from emissions trading, dedicated financial support to low-income/vulnerable households (fuel subsidies), and specialised energy poverty alleviation mechanisms. For each of these financing schemes and instruments, various parameters were studied, considering the duration, eligible recipients, managing bodies, volume of funding, own contribution requirements, and impact.

Based on this research matrix, an in-depth review of the existing building renovation support schemes was performed by desk research with contributions from local partners (MRI for Hungary, LVOA-ALCO for Lithuania, HFHM for North Macedonia, ENEFFECT for Bulgaria and OHU for Ukraine). BPIE, Nadacia HFHI and IWO validated the review outcomes through critical analysis of the national reports, based on their vast experience in design of national renovation plans and supporting implementation of financing instruments.

Following the outcomes of the review, the most ambitious and promising financing schemes and mechanisms were selected and analysed in further detail. The case studies were based on an analytic review of the motivation and applicability in the country-specific conditions, involvement of stakeholders, successful practices in the implementation, evidenced limitations of the schemes and recommendations for their future application. Additional examples from the Central and Eastern Europe region were collected and described to provide a more complete picture of the applicable policy and financial approaches, considering the need to provide access for energy-poor households to renovation programmes at national and local level.

In the last step of the report, the collected current practices in the pilot countries were evaluated according to availability of data for comparability of the results, coupled with expert evaluations based on local experience of their actual application. This has created a common knowledge platform about the existing financing mechanisms, which is expected to facilitate the smooth integration of newly developed/adapted financial schemes in the pilot countries, taking into consideration the existing market environment and the typical structures of the financing programmes. In addition, the outputs of this report will be applicable throughout the stakeholder engagement process: because they present examples from countries with common political and economic backgrounds, they have strong replication potential.



## 3. Available financing schemes in the target countries

### 3.1. Commercial banks

#### Loans

#### Bulgaria



**Note:** No specialised products for energy efficiency in the residential sector designed by commercial banks are available for the time being

<b>Name</b>	Urban development funds under operational programme "Regions in Growth"
<b>Link:</b>	<a href="http://www.mrrb.bg/en/infrastructure-and-programmes/op-regions-in-growth/priority-axes">www.mrrb.bg/en/infrastructure-and-programmes/op-regions-in-growth/priority-axes</a> ; <a href="http://www.citiesfund.bg/en/?cid=13">www.citiesfund.bg/en/?cid=13</a>
<b>Duration:</b>	2017-2022
<b>Recipients:</b>	Bulgarian households
<b>Managing body:</b>	Urban development funds (for Sofia, Northern and South Bulgaria)
<b>Volume of funding:</b>	Not defined – part of total budget of €137 million, distributed between different activities
<b>Own contribution:</b>	Depending on the commercial bank, when bank products are marketed
<b>Details:</b>	The programme is supposed to cover a multitude of activities in selected urban centres (energy efficiency in family residential buildings and student dormitories, urban environment, integrated public transport, sports and cultural infrastructure and areas with economic development potential). Although one of the main goals of the programme is to provide soft loans for renovation to owners of single-family buildings, this is not happening at all yet, due to low interest from potential beneficiaries and expectations for high subsidy rates to be offered by the government in the near future. The programme is supposed to run via specialised consumer loans designed by selected commercial banks in partnership with the programme operator and financed through the funding line. Commercial banks, which are supposed to operate the programme, are however not willing to design and promote new products under these conditions, as their perceived costs for product design, promotion, training of the personnel and managing small projects at local level are deemed higher than the possible benefits. They are also concerned that the certification requirements would make the product more expensive and will be comparable to or even perform worse than their typical consumer products.

## Hungary



Name	Commercial loan with interest rate subsidy
Link:	n/a
Duration:	Since 1988
Recipients:	Condominiums and housing cooperatives
Managing body:	Commercial banks
Volume of funding:	No information
Own contribution:	c.10%
Details:	<p>From 1988 the subsidy was 75% of the interest rate in the first five years, 50% in the next five years. The interest rate was legally capped at 19.5%. Later both the subsidy and the interest rate declined: in 2011 the interest rate was around 4-5% in the first five years, 8-10% in the next five years as a result of 70% and 35% interest rate subsidy respectively. Currently the interest rate is typically around 5-8% with the 70%-35% subsidy scheme. The loans can be used for the renovation of any part of the building in common ownership.</p> <p>These loans are quite beneficial for a lot of communities but were hardly used between 1988 and 2005, as even if the loan was provided to the homeowners' association (HOA), the banks required liens on all individual apartments. It became popular as a source of co-financing for the major grant scheme (see: "Panelprogram") introduced by the government in 2001. From 2005 the major collateral became the pledge of the account of the condominium or cooperative, with some additional deposits. However, a significant number of buildings affected by poverty are still excluded: buildings with a high rate of inhabitants having arrears; buildings owned by the local/district municipality. Buildings are required to have a renovation fund which they have started four years before applying for the interest rate subsidy (or within 90 days after the establishment of the condominium). Further problems include a slow assessment process, and some banks requiring a high deposit from the condominiums.</p>

Name	Bausparkasse scheme ("Lakás-takarékpénztár")
Link:	n/a
Duration:	1997-2018
Recipients:	Individuals, condominiums and housing cooperatives

<u>Managing body:</u>	Financial institutions (Bausparkasse-s/building societies)
<u>Volume of funding:</u>	In the past 10 years, c.€134 million (47 billion HUF) per year on average
<u>Own contribution:</u>	70%
<u>Details:</u>	Between 1997 and 2018 the state provided a 30% subsidy for savings within this scheme, which was available for individuals and multi-family apartment buildings. Recipients signed a contract and created a separate account controlled by the managing body for their savings on which they received the subsidy (30% of the amount of their monthly transfer to the account). The subsidised savings were allowed to be spent on renovation, among other housing purposes. The subsidy was provided for up to 10 years, with a maximum amount of 72,000 HUF/year (c. €200) for individual recipients. For buildings, the subsidy was higher, depending on the number of flats in the building (in 2011, €309-926/year). The scheme also contained a loan with favourable conditions that could be used after the saving period was over. Many condominiums and cooperatives combined the Bausparkasse scheme with the interest rate subsidised loan, enabling them to achieve a nearly zero or even negative interest rate. In 2018 the scheme included 1.3-1.5 million contracts.

<u>Name</u>	Interest-free loans from EU funds (operational funds of GINOP, VEKOP)
<u>Link:</u>	<a href="http://www.palyazat.gov.hu/ginop-841-a-17-lakpletek-energiahatkonysgnak-s-megjul-energia-felhasznalsnak-nvelst-clz-hitel">www.palyazat.gov.hu/ginop-841-a-17-lakpletek-energiahatkonysgnak-s-megjul-energia-felhasznalsnak-nvelst-clz-hitel</a> <a href="http://www.mfb.hu/maganszemelyek/lakossagi-energiahatkonysagi-hitel-t32-p32">www.mfb.hu/maganszemelyek/lakossagi-energiahatkonysagi-hitel-t32-p32</a>
<u>Duration:</u>	2017-2019 in Budapest (opened up in February 2021 again), and 2017- in other parts of the country
<u>Recipients:</u>	Condominiums, housing cooperatives, family houses
<u>Managing body:</u>	Ministry of Finance, Ministry of National Economy, distributed through commercial banks
<u>Volume of funding:</u>	c.€28.57 million (10 billion HUF) in the Central Hungary region, c. €285.7 million (100 billion HUF) in the other parts of the country
<u>Own contribution:</u>	-
<u>Details:</u>	The loan is financed from the EU Structural and Investment Funds and distributed through commercial banks. The Hungarian Investment Bank (MFB) created a country-wide network from commercial bank branches where people could apply for the loan. The Central Hungary region ran out of money quite soon, however the application procedure was reopened in February 2021. The loans mainly financed renewables for family houses around Budapest. According to the legislation, up to 25% of the funds were allowed to be spent on multi-family apartment buildings, but supposedly even this limit was not reached. It was allowed to be used for the improvement of energy efficiency and renewables.

## Lithuania



<b>Name</b>	Šiaulių bankas
<b>Link:</b>	<a href="https://sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation">https://sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation</a>
<b>Duration:</b>	Introduced in 2005 and substantially improved in 2013 – see under “Multi Apartment Building Renovation (Modernisation) Programme” in the <i>Grant schemes</i> section, below
<b>Recipients:</b>	Owners of apartments in a building submitted for the Renovation Programme
<b>Managing body:</b>	BETA
<b>Volume of funding:</b>	Up to €150 million per year
<b>Own contribution:</b>	From 0 to 70%
<b>Details:</b>	See under “Multi Apartment Building Renovation (Modernisation) Programme” in the <i>Grant schemes</i> section, below

## North Macedonia



<b>Name</b>	ProCredit bank: Green loan for EE home
<b>Link:</b>	<a href="http://www.pcb.mk/en/green-loan">www.pcb.mk/en/green-loan</a>
<b>Duration:</b>	Ongoing
<b>Recipients:</b>	Individuals
<b>Managing body:</b>	ProCredit Bank
<b>Volume of funding:</b>	Interest rate: fixed 6%; repayment period: up to 5 years; disbursement fee: 2%; down payment: 0%; collateral: not needed
<b>Own contribution:</b>	n/a
<b>Details:</b>	ProCredit Bank Macedonia launched a programme of green finance products consisting of energy efficiency loans for private individuals as well as for businesses, using funds from the European Bank for Reconstruction and Development (EBRD). The loans are intended for energy efficiency improvements of housing according to the eligible measures for grants described on the Technology selector on the <a href="#">Green Economy Financing Facilities</a> website. Some of the eligible measures are: insulation of



outside walls, roof, floor; installation of windows, doors, biomass boilers, energy efficient lighting, gas boilers, heat pumps, solar photovoltaic system, etc.

<b>Name</b>	Halkbank AD Skopje: ECO LOAN:
<b>Link:</b>	<a href="http://halkbank.mk/eco_loan_retail.nspix">halkbank.mk/eco_loan_retail.nspix</a>
<b>Duration:</b>	This information can't be found from the webpage
<b>Recipients:</b>	Individuals
<b>Managing body:</b>	Halkbank
<b>Volume of funding:</b>	Amount: up to 300.000 MKD. Maximum term: up to 95 months. Grace period: up to 3 months. Interest rate: fixed 5.5 pp (6.18 % APR). Upfront fee: 1.75% from the amount. Loan costs: costs for checking in Macedonian Credit Bureau: 350 MKD (the fee is paid before the payment of the loan and is not paid for declined or cancelled requests). 150 MKD loan application. Credit worthiness: half of the total monthly incomes for employees and one-third of the monthly income for pensioners. Earmarked use of funds according to pro-invoice/invoice. Collateral: loan agreement.
<b>Own contribution:</b>	n/a
<b>Details:</b>	<p>Eco loan is intended for individuals who want to increase the energy efficiency of their home by financing economically efficient products and projects, as well as using renewable energy sources (installation of solar panels) and supplying better thermal insulation at home (energy-efficient façade, windows and doors, installation of efficient heating systems). In this way, they will reduce energy consumption and associated costs, while at the same time contributing to the protection of the environment.</p> <p>The loan is also available for pensioners.</p>

<b>Name</b>	Savings house Moznosti
<b>Link:</b>	<a href="http://www.moznosti.com.mk/habitat-loan-for-energy-efficiency.nspix">www.moznosti.com.mk/habitat-loan-for-energy-efficiency.nspix</a>
<b>Duration:</b>	2018 - ongoing
<b>Recipients:</b>	Farmers, business owners of Micro and Medium Enterprises, pensioners and others
<b>Managing body:</b>	Moznosti and Habitat Macedonia
<b>Volume of funding:</b>	Amount: up to 600.000 MKD; Repayment period: up to 95 months; Annual nominal interest rate: 5%; Annual rate of total costs: from 8.165%
<b>Own contribution:</b>	n/a

<u>Details:</u>	The loan is part of the joint initiative with Habitat Macedonia for energy efficiency in rural areas and is for energy-efficient façades, windows and doors replacement, efficient heating and cooling systems, systems for renewable energy (mainly solar systems), etc. The loans can be used by pensioners and farmers.
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<b>Name</b>	MFI Horizonti in partnership with Habitat Macedonia <ul style="list-style-type: none"> <li>o "Home" housing loan</li> </ul>
<b>Link:</b>	<a href="http://horizonti.org.mk/en/mikro-zaemi-za-domuvanje">horizonti.org.mk/en/mikro-zaemi-za-domuvanje</a> <a href="http://habitat.org.mk/index.php?page=portfolio">habitat.org.mk/index.php?page=portfolio</a>
<b>Duration:</b>	2007 - ongoing
<b>Recipients:</b>	Roma families and other marginalised groups with their own home, living in substandard conditions.
<b>Managing body:</b>	MFI Horizonti in partnership with Habitat Macedonia
<b>Volume of funding:</b>	Amount: 50.000-300.000 MKD; Repayment period: 18, 24, 36, 48 and 60 months; Interest: 11% annually, declining; RTE from 21.62% to 23.82%
<b>Own contribution:</b>	n/a
<b>Details:</b>	<p>The "Home" housing loan was established in 2007 as a partnership by Habitat Macedonia and MFI Horizonti, creating a revolving fund to offer Roma families and other marginalised groups loans for the reconstruction of their homes. HFH Macedonia is responsible for identifying the housing needs and provides construction technical advice for the partner families. At the same time, MFI Horizonti assesses the creditworthiness of the partner families, administers the loans, and provides suitable financial control over the partner families, in order to achieve a proper repayment rate.</p> <p>The loans are for renovation, extensions, repairs, reconstruction, etc. More than 40% of the home improvements are for the purpose of improving energy efficiency, such as thermal insulation of the façade or changing old windows.</p>

<b>Name</b>	MFI Horizonti <ul style="list-style-type: none"> <li>o "Domus" housing loan</li> <li>o "Instant" housing loan</li> </ul>
<b>Link:</b>	<a href="http://horizonti.org.mk/en/mikro-zaemi-za-domuvanje">horizonti.org.mk/en/mikro-zaemi-za-domuvanje</a>
<b>Duration:</b>	o "Domus" housing loan: 2010 - ongoing
<b>Recipients:</b>	Recipients for both housing loans are people with their own home and substandard living conditions, plus owners of micro and small businesses in the area of commerce, services and retail production. Individual agricultural producers are eligible for the "Instant" housing loan.
<b>Managing body:</b>	Microcredit Foundation Horizonti

<u>Volume of funding:</u>	<ul style="list-style-type: none"> <li>o "Domus" housing loan Amount: 100,000-300,000 MKD; Repayment period: 24, 36, 48 and 60 months; Interest: 11% annually, declining; RTE from 20.14% to 23.52%</li> <li>o "Instant" housing loan Amount: 30,000-60,000 MKD; Repayment period: 6-18 months; Interest: the interest rate for all individual loans expressed in denars is fixed at 11.00% on an annual basis calculated according to the proportional method</li> </ul>
<u>Own contribution:</u>	n/a
<u>Details:</u>	<ul style="list-style-type: none"> <li>o "Domus" housing loan For renovation, extensions, repairs, reconstruction, etc.</li> <li>o "Instant" housing loan For heating material and winter supplies; home appliances; furniture and furnishings; minor home repairs; education costs (field trips, tuitions, computers, student accommodation); covering debts for utilities and taxes; surcharge for flats and land purchase</li> </ul>

<u>Name</u>	Sparkasse bank: ECO loans for ECO home – improve energy efficiency in your home:
<u>Link:</u>	<a href="http://www.sparkasse.mk/Private_clients/Loans_and_Financing/Purpose_Loans/ECO_loans.aspx">www.sparkasse.mk/Private_clients/Loans_and_Financing/Purpose_Loans/ECO_loans.aspx</a>
<u>Duration:</u>	
<u>Recipients:</u>	Individuals
<u>Managing body:</u>	Sparkasse Bank
<u>Volume of funding:</u>	Maximum loan amount: Up to €50.000. Repayment period: up to 20 years. Approval fee: 2% (minimum 500 MKD). Interest rate: fixed, for the first three years starting from 5.7% ; flexible, after expiration of the fixed period, starting from 5.9% depending on the client's internal credit rating
<u>Own contribution:</u>	n/a
<u>Details:</u>	Consumer loans for energy efficiency within the EBRD Western Balkans Green Economy Investments Project (GEFF). GEFF in Macedonia is part of the Regional Energy Efficiency Programme for the Western Balkans launched by the EBRD providing and supporting investments in the green economy. ECO loans can be used enhancing energy efficiency in the household. Successfully implemented and approved projects are eligible for investment grants between 15% and 20% of the investment value. The Technology Selector is an online energy efficiency technology catalogue with high performances already approved for funding by GEFF, and includes the following categories: Windows, doors and glazing; Insulation; Biomass stoves/boilers; Gas boilers; Solar water heaters; Photovoltaic systems; Heat pumps; Lighting; Balanced mechanical ventilation; Hot water storage tanks. Eligible projects include funding

technologies from the Technology Selector as well as ancillary material costs, delivery and installation up to the defined maximum percentage of the technology costs.

<b>Name</b>	Ohridska bank: A++ SPECIFIC-PURPOSE CASH LOANS: Ohridska bank: A++ CASH MORTGAGE LOAN:
<b>Link:</b>	<a href="http://www.ohridskabanka.mk/a-plus-plus-credit.nspix">www.ohridskabanka.mk/a-plus-plus-credit.nspix</a>
<b>Duration:</b>	Ongoing
<b>Recipients:</b>	Individuals
<b>Managing body:</b>	Ohridska Banka
<b>Volume of funding:</b>	<b>A++ Specific Purpose:</b> Interest rate: fixed interest rate during the first three years starting from 5.50%, followed by a variable rate until the end of the loan term. A return of up to 20% of the amount of the approved loan – energy-efficiency investment grants. Loan maximum up to €50,000. Loan repayment term of up to 240 months. Currency: MKD, with foreign currency clause included. With or without insurance for the life of the loan. <b>A++ Cash mortgage:</b> Interest rate: fixed interest rate throughout the entire loan term, starting from 5.55% during the first 3 years. A return of up to 20% of the amount of the approved loan – energy-efficiency investment grants supported by the EBRD. Loan maximum up to €20,000. Loan repayment term of up to 95 months. Currency: MKD, with foreign currency clause included. With or without insurance for the life of the loan.
<b>Own contribution:</b>	n/a
<b>Details:</b>	Specific-purpose cash loans intended for financing energy-efficient products. By investing wisely in technologies with a higher level of energy efficiency, clients can receive a grant of up to 20% for a successfully realised project.

<b>Name</b>	Habitat for Humanity Macedonia - Energy Efficient Homes
<b>Link:</b>	n/a
<b>Duration:</b>	2009 – ongoing
<b>Recipients:</b>	Homeowners of apartments and homeowners associations (HOAs) in multi-apartment buildings for energy efficiency upgrades, homeowners of single houses for energy efficiency renovation
<b>Managing body:</b>	Habitat Macedonia
<b>Volume of funding:</b>	Revolving Fund of US\$900.000. Conditions and terms for loans depend on municipal contribution (subsidies), homeowners' creditworthiness etc.



<u>Own contribution:</u>	n/a
<u>Details:</u>	Revolving fund was established in 2009 and is used through five different financial models: direct loans to the homeowners; with municipal subsidies; for HOAs; to specialised companies (construction company); through microfinance institutions. Loans are intended to serve homeowners in multi-apartment buildings and can be used for replacement of windows, doors, façade insulation, roofs and floors. Loans are available for HOAs, management facility companies and for pensioners. In cooperation with municipalities, loans can be adjusted according to the needs and creditworthiness of homeowners and according the municipal subsidies.

## Ukraine



<b>Name</b>	The programme “Warm credits” Resolution of the Cabinet of Ministers of Ukraine dated 01.03.2010, No. 249 dated 17.10.2011, No. 1056
<b>Link:</b>	<a href="http://saee.gov.ua/uk/consumers/tepli-kredyty">saee.gov.ua/uk/consumers/tepli-kredyty</a>
<b>Duration:</b>	October 2011 to the present; from 2021 will not be available for multi-family apartment buildings (MFABs)
<b>Recipients:</b>	1) HOAs, housing cooperatives 2) Apartment owners 3) Owners of one- and two-family private houses
<b>Managing body:</b>	Banks
<b>Volume of funding:</b>	1) 40% but not more than €467 for an apartment 2) 20% but not more than €400 for boilers 3) 35% but not more than €467 for materials
<b>Own contribution:</b>	1) 60% 2) 80% 3) 65%
<b>Details:</b>	The most successful programme was used by 151 HOAs and housing cooperatives in Odessa, some of them several times. Disadvantages: obligation to take a loan from a bank, combined with a very high interest on the loan (from 18% per year). The programme aims to improve energy efficiency and renewable energy use in buildings through partial repayment of loans by the state. Measures financed include transferring autonomous and individual heating systems from gas and electricity to renewable energy sources, replacing windows and doors with energy-saving ones, installing energy metering devices, insulating building envelopes, replacing engineering systems.



Name	City loan repayment programme. Decision of the city council of Odessa from 10.09.2015. No. 6920-VI <sup>6</sup>
Link:	
Duration:	2016 – ongoing
Recipients:	HOAs, housing cooperatives, apartment owners associations, housing cooperatives
Managing body:	Bank
Volume of funding:	1) Reimbursement of up to 40% of the loan for the installation of devices, but not more than €667 2) Reimbursement of up to 35% for other measures but not more than €10,000
Own contribution:	
Details:	Municipalities supplement their programmes with "Warm Loans" by subsidising the purchase of equipment and the performance of construction and assembly works by repaying the loan. For poor households, subsidies are increasing. In this case, the description refers to the support scheme applied by the city of Odessa, but similar approaches are to be found in other Ukrainian cities as well.

## Bonds

### Hungary



Name	Green Bond
Link:	<a href="https://mfor.hu/cikkek/makro/itt-a-magyar-zoldkotveny--15-milliard-euroert-adtak-el.html">mfor.hu/cikkek/makro/itt-a-magyar-zoldkotveny--15-milliard-euroert-adtak-el.html</a> ; <a href="https://www.mnb.hu/sajtoszoba/sajtokozlemenyek/2020-evi-sajtokozlemenyek/megtortent-az-első-hazai-zöld-vállalatikotveny-kibocsátás-az-nkp-keretében">www.mnb.hu/sajtoszoba/sajtokozlemenyek/2020-evi-sajtokozlemenyek/megtortent-az-első-hazai-zöld-vállalatikotveny-kibocsátás-az-nkp-keretében</a>
Duration:	2020 –
Recipients:	
Managing body:	
Volume of funding:	c.€1.5 billion

<sup>6</sup> The same programme is replicated in Kyiv, Kharkov, Lviv and other Ukrainian cities

<u>Own contribution:</u>	
<u>Details:</u>	Released in June 2020, but we do not have specific information about what it is used for. Most probably the programme focuses on large infrastructure investments and lacks housing-related elements.

### 3.2. Specialised funds

#### Loans

##### Bulgaria



<b>Name</b>	Energy Efficiency and Renewable Sources Fund (EERSF)
<b>Link:</b>	<a href="http://www.bgeef.com/en">www.bgeef.com/en</a>
<b>Duration:</b>	2005 – ongoing
<b>Recipients:</b>	Bulgarian enterprises, municipalities and private individuals
<b>Managing body:</b>	Management board consists of 11 members
<b>Volume of funding:</b>	BGN 13,500 – 400,000 at interest rate of 4% – 7% BGN 400,000 – 1,350,000 at interest rate of 3.5% – 5.5% Maximum duration 7 years
<b>Own contribution:</b>	10%
<b>Details:</b>	One of the best-performing specialised funds in Central and Eastern Europe, with a default rate of less than 1%; most of its projects are however in public buildings. Only one project has been realised in a residential building with multiple ownership; reasons include HOAs not being legal entities and competition from the grant schemes running in parallel (in the only implemented project, the contract for the full amount was concluded with one homeowner, who guaranteed the whole credit, and there were no state support programmes at that time). The fund is, however, an excellent potential source of bridge financing complementary to subsidy schemes financed by the Operational Programme or the national budget due to its experience and technical capacity.

<b>Name</b>	National Trust EcoFund: Investment Climate Program – Energy efficiency
<b>Link:</b>	<a href="http://ecofund-bg.org/en/programs/documents-investment-climate-program">ecofund-bg.org/en/programs/documents-investment-climate-program</a>
<b>Duration:</b>	2017 – 2020

<u>Recipients:</u>	Municipalities
<u>Managing body:</u>	Management board
<u>Volume of funding:</u>	Among others: municipal social sites, including housing – up to 60%, but not more than BGN 300 000
<u>Own contribution:</u>	40%
<u>Details:</u>	No projects for social housing known to be implemented so far; other types of projects are preferred by the beneficiaries (the municipal authorities) due to the difficulties to engage with multiple owners and competition from the 100% grant programme.

## Lithuania



<u>Name</u>	Small solar PV subsidy
<u>Link:</u>	<a href="http://www.apva.lt/privacioms-saules-elektrinemis-isirengti-dar-daugiau-galimybiu">www.apva.lt/privacioms-saules-elektrinemis-isirengti-dar-daugiau-galimybiu</a>
<u>Duration:</u>	Expected in March 2021
<u>Recipients:</u>	Lithuanian households
<u>Managing body:</u>	APVA ( <a href="http://www.apva.lt/en">www.apva.lt/en</a> )
<u>Volume of funding:</u>	€9 million (first round; more to come)
<u>Own contribution:</u>	Approx. 60-70%. Subsidy reaches certain amount in euros per kWp (~€350/kWp, subject to be published once call details are disclosed). Max. ~€3,500 per household.
<u>Details:</u>	Upcoming call, info in Lithuanian: <a href="http://www.apva.lt/privacioms-saules-elektrinemis-isirengti-dar-daugiau-galimybiu">www.apva.lt/privacioms-saules-elektrinemis-isirengti-dar-daugiau-galimybiu</a> . This subsidy allows small generation solar PV uptake due to net metering scheme.

## Ukraine



<u>Name</u>	Energy Efficiency Fund, Programme "Energodom"
<u>Link:</u>	<a href="http://eefund.org.ua/en">eefund.org.ua/en</a>
<u>Duration:</u>	2019 to 2023
<u>Recipients:</u>	Homeowners' associations (HOAs)



<u>Managing body:</u>	Banks
<u>Volume of funding:</u>	Reimbursement of 70% of the cost of preparatory activities but cannot exceed 15% of the cost of the main work Compensation from 40% to 70% of the cost of work, materials, equipment
<u>Own contribution:</u>	30% for preparatory activities 30%-60% for construction works
<u>Details:</u>	The Energodom programme consists of two packages: "Light package A" for the modernisation and replacement of engineering systems of the building; "Heavy package B" for complex modernisation of an apartment building. Due to artificial limitations of beneficiaries and bureaucratic red tape, they were not widely used.

<u>Name</u>	Own funds of HOAs/housing cooperatives
<u>Link:</u>	
<u>Duration:</u>	From the moment of state registration to the present
<u>Recipients:</u>	HOAs, housing cooperatives
<u>Managing body:</u>	General assemblies of HOAs, housing cooperatives
<u>Volume of funding:</u>	No limits
<u>Own contribution:</u>	100%
<u>Details:</u>	<p>The own funds of HOAs and housing cooperatives are the most frequently used financing schemes for increasing the energy efficiency in their buildings. The source of these funds are:</p> <ul style="list-style-type: none"> <li>- Additional contributions from the owners of apartments and non-residential premises for repair and modernisation</li> <li>- Income of HOAs / housing cooperatives from renting out auxiliary premises of the house</li> <li>- Advertising placement</li> <li>- Payments for parking vehicles</li> <li>- Payment of telecommunication service providers for access to home infrastructure</li> <li>- Recently, due to the ban on the placement of solar power plants on the ground, private business has shown interest in the roofs of apartment buildings for the installation of solar power plants.</li> </ul>

<u>Name</u>	Revolving funds
<u>Link:</u>	n/a
<u>Duration:</u>	2016 to present
<u>Recipients:</u>	HOAs, housing cooperatives

<u>Managing body:</u>	HOAs, housing cooperatives
<u>Volume of funding:</u>	
<u>Own contribution:</u>	n/a
<u>Details:</u>	Some cities in Ukraine successfully use revolving funds to carry out major repairs to apartment buildings. An example is the revolving fund operating in Rivne and Slavuta, sponsored by Heinrich Böll Foundation and operated by the city officials together with the NGO Ecoclub ( <a href="http://ecoclubrivne.org/en/ef_fund">ecoclubrivne.org/en/ef_fund</a> )

## Cessions

### Bulgaria



<u>Name</u>	Energy Efficiency and Renewable Sources Fund (EERSF)
<u>Link:</u>	<a href="http://www.bgeef.com/en">www.bgeef.com/en</a>
<u>Duration:</u>	2015 – ongoing
<u>Recipients:</u>	Corporate clients, ESCOs
<u>Managing body:</u>	Management board consists of 11 members
<u>Volume of funding:</u>	BGN 13,500 – 1,350,000 at interest rate of 4% – 7% Maximum term 7 years
<u>Own contribution:</u>	10%
<u>Details:</u>	Cessions of ESCO contracts. The scheme is comparatively successful as there is a need to provide operational means for ESCOs to engage in new projects and it is one of the key instruments to develop the emerging ESCO market in Bulgaria. There is still no experience with ESCOs in the residential sector, but there is potential to apply this already existing scheme for such projects as well.

## Grant schemes

### Bulgaria



<b>Name</b>	Residential Energy Efficiency Credit (REECL) Facility
<b>Link:</b>	<a href="https://reeccl.org/en/about-us">reeccl.org/en/about-us</a>
<b>Duration:</b>	2014-2019
<b>Recipients:</b>	Bulgarian households
<b>Managing body:</b>	EBRD via local commercial banks
<b>Volume of funding:</b>	15% subsidy rate for renovation measures
<b>Own contribution:</b>	Depends on the commercial bank
<b>Details:</b>	<p>A €20 million facility to provide credit lines to reputable Bulgarian banks to make loans to individuals, associations of apartment owners or service providers (housing management companies, ESCOs, developers and construction companies) for specific energy efficiency measures including double-glazing; wall, floor, and roof insulation; efficient biomass stoves and boilers; solar water heaters; efficient gas boilers and gasification installations; heat pump systems; building-integrated photovoltaic systems; heat-exchanger stations and building installations; balanced mechanical ventilation systems with heat recovery; and energy efficient lifts.</p> <p>To help stimulate the uptake of residential energy efficiency projects, an additional grant financing was earmarked in support of project development and incentive grants paid to REECL borrowers after verification by an independent consultant that each eligible residential energy efficiency project has been completed. Borrowers benefited from a 15% incentive towards the cost of the eligible energy saving projects in one- or two-family houses and up to 15 % in multifamily buildings with more than three dwellings subject to the terms and conditions of the REECL.</p> <p>The scheme was not particularly efficient, especially in the case of multifamily apartment buildings. It faced strong competition from the 100% grant scheme (see below) and also from the grey market in the construction sector.</p>

<b>Name</b>	National Programme for Energy Efficiency in Multifamily Residential Buildings
<b>Link:</b>	<a href="http://www.mrrb.bg/en/energy-efficiency/energy-efficiency-of-multi-family-residential-buildings-national-programme">www.mrrb.bg/en/energy-efficiency/energy-efficiency-of-multi-family-residential-buildings-national-programme</a>
<b>Duration:</b>	2015-2020, continuation expected
<b>Recipients:</b>	Homeowners' associations

<u>Managing body:</u>	Methodology: Ministry of Regional Development Financial operations: Bulgarian Development Bank Operational management: Municipalities
<u>Volume of funding:</u>	100% subsidy rate for all activities related to the execution of the project (structural and energy audit, design, construction works, supervision). Total budget of €1 billion
<u>Own contribution:</u>	n/a
<u>Details:</u>	The programme was dedicated to the renovation of multifamily residential buildings up to energy class C at 100% grant rate, on a first-come, first-served principle. No social criteria for eligibility were applied, meaning that even high-income households were eligible for the 100% subsidy. No technical monitoring of the results was applied – the statements about the energy savings were based on “normalised” energy audits and surveys with beneficiaries. Although the measures definitely had positive impact on households at risk of energy poverty (reaching up to 50% as per our estimation), the results could be much better if higher energy targets and differentiated eligibility criteria were applied. Understandably, the scope of the programme was relatively small, as €1 billion was sufficient for about 4% of the eligible buildings. Given the fact that the execution of the programme spread over five years, it is obvious that at this rate, there is no way that all households will be served, and of course, no other programmes or financing instruments offering different conditions can compete with this one.

<b>Name</b>	Operational programme "Regions in Growth", axis "Support for Energy Efficiency in the Peripheral Regions"
<u>Link:</u>	<a href="http://www.bgregio.eu/shemi/158/oprr.aspx">www.bgregio.eu/shemi/158/oprr.aspx</a>
<u>Duration:</u>	2015-2019
<u>Recipients:</u>	Homeowners' associations
<u>Managing body:</u>	Operational management: Municipalities
<u>Volume of funding:</u>	~€105 million
<u>Own contribution:</u>	n/a - 100% subsidy rate for all activities related to the execution of the project (structural and energy audit, design, construction works, supervision)
<u>Details:</u>	Although the programme displays many of the deficiencies of the above-described one, a notable positive feature is the ranking criteria for projects based on their energy saving and environmental impact and economic efficiency. Projects were ranked according to the achieved energy class, CO <sub>2</sub> emissions saved and energy saved per invested euro. Although no social criteria were applied, the energy criteria have a beneficial impact on the financial savings achieved by the households, and hence on the energy poverty mitigation.



## Hungary



<b>Name</b>	Grant scheme for the renovation of buildings built by industrialised technology ('Panelprogram' I., II.)
<b>Link:</b>	
<b>Duration:</b>	2001-2009
<b>Recipients:</b>	Condominiums and housing cooperatives built by industrialised technology
<b>Managing body:</b>	Ministry of National Development with different intermediary bodies
<b>Volume of funding:</b>	Until 2011: ~€124 million (43.4 billion HUF)
<b>Own contribution:</b>	33-50%
<b>Details:</b>	The state and the local/district municipality each provided one-third of the renovation costs as a non-refundable subsidy. The maximum amount of subsidy/flat was 400 000-500 000 HUF (€1,140-1,430). The programme focused on improving energy efficiency in prefabricated buildings. The group of eligible actions was gradually increased: while the first years of the programme typically covered modernisation of the heating system or changing of doors and windows, later whole buildings were renovated including insulation or even renewable energy installations. More complex investments corresponded with higher amounts of subsidy. After the mid-2000s the participation of municipalities was no longer obligatory and the subsidy provided by the state increased to 50-60% of the costs. The financial crisis led to lack of resources and the termination of applications in 2009 (by using the already awarded funds in 2011-2012).

<b>Name</b>	The Warmth of Home: Grant scheme for improving energy efficiency (individual households)
<b>Link:</b>	
<b>Duration:</b>	2014-
<b>Recipients:</b>	Households
<b>Managing body:</b>	Ministry of National Development
<b>Volume of funding:</b>	~€103 million (36 billion HUF)
<b>Own contribution:</b>	10-60%

<u>Details:</u>	The Warmth of Home programme focuses on improving energy efficiency of households. It includes several sub-programmes from the modernisation of heating system and replacement of household appliances to larger renovation schemes. Initially it targeted individual households.
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<b>Name</b>	<b>The Warmth of Home: Grant scheme for the renovation of MFABs</b>
<b>Link:</b>	
<b>Duration:</b>	2015
<b>Recipients:</b>	Condominiums and housing cooperatives
<b>Managing body:</b>	Ministry of National Development
<b>Volume of funding:</b>	~€28.6 million (10 billion HUF)
<b>Own contribution:</b>	Max. 50%
<b>Details:</b>	One of the sub-programmes of The Warmth of Home is often called Panelprogram III., as it targeted MFABs similarly to the grant schemes of 2001-2009. The new funding was also available for buildings built with traditional technology. Unlike the schemes before 2010, this grant required the applicants to choose from certain renovation packages corresponding with different levels of intensity. Those who applied for a more costly package (e.g. renewables) had to guarantee a certain level of energy saving and were entitled to a higher subsidy rate. Together with the 2001-2009 scheme around 23% of flats in buildings built with industrial technology in Budapest were renovated.

<b>Name</b>	<b>Grant scheme for renovation of flats for families with children</b>
<b>Link:</b>	<a href="http://bankmonitor.hu/cikk/jon-az-otthonfelujitasi-tamogatas-2021-tol-3-millio-ft-ig-alljak-majd-a-szamlat">bankmonitor.hu/cikk/jon-az-otthonfelujitasi-tamogatas-2021-tol-3-millio-ft-ig-alljak-majd-a-szamlat</a>
<b>Duration:</b>	From January 2021
<b>Recipients:</b>	Families with children
<b>Managing body:</b>	Ministry of Human Affairs
<b>Volume of funding:</b>	According to the government announcement the budget of the programme will not have an upper limit.
<b>Own contribution:</b>	50%
<b>Details:</b>	The state will refund 50% of any renovation costs up to 3 million HUF (€8,300) for families having one or more children. The refund has to contain 50% material costs

and 50% employment costs. The state also provides a 3% interest rate loan for pre-financing the renovation costs before claiming the refund.

<b>Name</b>	VAT subsidy for renovation
<b>Link:</b>	<a href="https://hitelnet.hu/ado-visszateritesi-tamogatas-epitesi-telek-vasarlasa-es-epitkezes-eseten">hitelnet.hu/ado-visszateritesi-tamogatas-epitesi-telek-vasarlasa-es-epitkezes-eseten</a>
<b>Duration:</b>	January 2020 –
<b>Recipients:</b>	Households
<b>Managing body:</b>	National Tax and Customs Administration of Hungary (NTCA/NAV); commercial banks
<b>Volume of funding:</b>	No information
<b>Own contribution:</b>	73% (VAT is 27%)
<b>Details:</b>	The state refunds the VAT (27%) for households after the costs of renovation up to 5 million HUF (€13,950). It is available in the 2,486 smallest settlements of Hungary (Hungary has 3,154 settlements). Preconditions of eligibility include having public health insurance and not having debt towards the National Tax and Customs Administration. The subsidy is provided in the form of ex-post financing through commercial banks.

## Lithuania



<b>Name</b>	Multi Apartment Building Renovation (Modernisation) Programme
<b>Link:</b>	<a href="https://sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation">sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation</a>
<b>Duration:</b>	Ongoing. Every year a new funding tender is announced.
<b>Recipients:</b>	Lithuanian households
<b>Managing Body:</b>	BETA (Housing Energy Efficiency Agency) <a href="https://www.betalt.lt/en">www.betalt.lt/en</a>
<b>Volume of funding:</b>	Latest round (effective 2020): €150 million. <a href="https://www.e-tar.lt/portal/lt/legalAct/833536e0bb9711eab9d9cd0c85e0b745">www.e-tar.lt/portal/lt/legalAct/833536e0bb9711eab9d9cd0c85e0b745</a>
<b>Own contribution:</b>	30% subsidy, 70% own contribution (can be loan from local bank)
<b>Details:</b>	100% coverage of renovation costs if the family receives heat subsidies. Loan system is described here: <a href="https://sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation">sb.lt/en/corporate/finance/building-renovation/multi-apartment-renovation</a>

Name	Small renovation
Link:	<a href="http://www.betalt.lt/en">www.betalt.lt/en</a>
Duration:	Ongoing. Every year a new funding tender is announced. First call opened 3 August, 2020.
Recipients:	Lithuanian households
Managing Body:	BETA (Housing Energy Efficiency Agency)
Volume of funding:	€5 million
Own contribution:	Up to 30% subsidy
Details:	Limited energy efficiency measures for households connected to district heating systems (renovation of hot water systems, centralised heat local distribution equipment – replacement of outdated equipment with automated heat distribution system etc.). <a href="http://bit.ly/3mXJ6AA">bit.ly/3mXJ6AA</a>

Name	Extra support for solar/heat pumps (“RES subsidy”)
Link:	<a href="http://www.betalt.lt/en">www.betalt.lt/en</a>
Duration:	2020 was the first year. The programme is yet to become permanent; up to €2 million funding foreseen in the 2021 climate change support programme budget. First call opened 28 May 2020.
Recipients:	Lithuanian households
Managing body:	BETA (Housing Energy Efficiency Agency)
Volume of funding:	€2 million total per year, financed from climate change programme
Own contribution:	30% subsidy in addition to the 30% specified above (under “Multi Apartment Building Renovation (Modernisation) Programme”). This brings total subsidy to 51%.
Details:	Why 51%? Applicants get 30% “ordinary” subsidy already, leaving only 70% to be covered by their own funds. The additional 30% “RES subsidy” is applied to this remaining 70%, not the whole project amount. This makes the effective subsidy rate at $(1-0.3)*0.3 + 0.3 = 0.51$ , or 51%. More: <a href="http://bit.ly/34Z3fjL">bit.ly/34Z3fjL</a> (in Lithuanian)

Name	Lietuvos aplinkos apsaugos investicijų fondas
Link:	<a href="http://www.apva.lt/call/kvietima-teikti-paraiskas-pagal-laaif-programos-aplinkos-oro-apsaugos-krypti">www.apva.lt/call/kvietima-teikti-paraiskas-pagal-laaif-programos-aplinkos-oro-apsaugos-krypti</a>
Duration:	Fresh funding round opened on 1 February 2021 and will last until 31 March 2021.
Recipients:	Legal persons

<b>Managing body:</b>	APVA ( <a href="http://www.apva.lt/en">www.apva.lt/en</a> )
<b>Volume of funding:</b>	Open call: €2.24 million. Max €200,000 per applicant.
<b>Own contribution:</b>	Max 70% subsidy. Current call (Feb-March 2021) is aimed to lower pollution from 1 to 50 MW centralised heat producing furnaces.
<b>Details:</b>	Part of environmental taxes (collected from businesses) is allocated to this fund and then distributed for projects related to mitigation of air/water pollution. Each year €2.8-4.8 million is directed to the fund; similar amounts are disbursed in ad hoc open calls. <a href="https://bit.ly/3aTpXNT">bit.ly/3aTpXNT</a>

## North Macedonia



<b>Name</b>	Programme for promotion of renewable energy sources and encouragement of energy efficiency in households for 2021
<b>Link:</b>	<a href="http://dejure.mk/zakon/programa-za-promocija-na-obnovlivi-izvori-na-energija-i-pottiknuvanje-na-energetska-efikasnost-vo-domakjinstvata-za-2021-godina">dejure.mk/zakon/programa-za-promocija-na-obnovlivi-izvori-na-energija-i-pottiknuvanje-na-energetska-efikasnost-vo-domakjinstvata-za-2021-godina</a>
<b>Duration:</b>	Every year the programme is revised in terms of proposed measures and the amount of the budget, starting from 2007.
<b>Recipients:</b>	For standard and low-income households. Low-income households are: a) low-income persons who are employed or one of the spouses is employed and the family's monthly net income does not exceed 30,000 denars; b) low-income persons who are retired or one of the spouses is retired and the family's monthly net income does not exceed 20,000 denars; c) vulnerable consumers as defined in the programme for protection of vulnerable energy consumers for 2021.
<b>Managing body:</b>	Ministry of Economy
<b>Volume of funding:</b>	52 million MKD
<b>Own contribution:</b>	Beneficiaries should purchase the proposed measure and apply for reimbursement for the part of expenses as defined in the programme.
<b>Details:</b>	Measures for low-income households include the reimbursed of part of the costs for purchased and installed: <ol style="list-style-type: none"> <li>1. Solar thermal collector systems – up to 70%, but not more than 15,000 MKD per household, from a total amount of 2 million MKD</li> <li>2. PVC or aluminium windows – up to 70%, but not more than 25,000 MKD per household, from a total amount of 3 million MKD</li> <li>3. Pellet stoves – up to 70%, but not more than 25,000 MKD per household, from a total amount of 3 million MKD</li> </ol>



4. Inverter air conditioners – up to 70%, but not more than 25,000 MKD per household, from a total amount of 3 million MKD.

The Ministry for Economy should announce public calls for the planned subsidies in 2021.

<b>Name</b>	Municipality of Karposh
<b>Link:</b>	
<b>Duration:</b>	2009 – ongoing
<b>Recipients:</b>	Homeowner associations, to benefit low-income households living in multi-apartment buildings
<b>Managing body:</b>	Local self-government
<b>Volume of funding:</b>	Depending on allocated resources in the annual municipal budget. For 2021 there €65,000 Euro.
<b>Own contribution:</b>	50%
<b>Details:</b>	<p>Municipality of Karposh was providing 100% subsidies for the renovation of façades and roofs of MFABs from 2009. In 2017 the subsidies decreased to 70%, while in 2021 the subsidies decreased to 50%.</p> <p>The programme is implemented in partnership with Habitat Macedonia. There is a public call, and homeowner associations apply for the subsidies.</p> <p>The municipality can provide 50% subsidy for the façade and 30% for the roof of MFABs, up to €7,000 and €2,500 respectively.</p>

## Energy performance contracts

Bulgaria



<b>Name</b>	Alliance for Energy Efficiency
<b>Link:</b>	<a href="http://www.alliance-ee.bg/?page_id=301">www.alliance-ee.bg/?page_id=301</a>
<b>Duration:</b>	n/a
<b>Recipients:</b>	Multiple beneficiaries
<b>Managing body:</b>	ESCOs
<b>Volume of funding:</b>	n/a

<u>Own contribution:</u>	n/a
<u>Details:</u>	The ESCO market is still underdeveloped in Bulgaria (mostly due to market failures in previous years), although the initial announcement of the energy efficiency obligation scheme stimulated fast developments and resulted in establishing of ESCO subsidiaries of the major energy distributors and service providers (CEZ, EVN, EnergoPro, gas distribution companies, etc.). At the moment, they are very actively investing in renewable energy production capacities in partnership with both industrial enterprises and local authorities. There are no practical applications in the residential sector, but the recent developments indicate potential for establishment of energy cooperatives with participation of residential building owners. The Alliance for Energy Efficiency is the representative association of ESCOs, which offer energy services based on energy performance contracts. It also maintains the ethical code of the ESCOs and works jointly with the national authorities on regulations and model energy performance contracts.

## Ukraine



<u>Name</u>	Law of Ukraine on Energy Saving 01.06.1994 №74 / 94-VR; Resolution of the Cabinet of Ministers of Ukraine dated 21.10.2015 № 845
<u>Link:</u>	
<u>Duration:</u>	2015 to present
<u>Recipients:</u>	HOAs, housing cooperatives
<u>Managing body:</u>	HOAs, housing cooperatives
<u>Volume of funding:</u>	Unlimited
<u>Own contribution:</u>	No
<u>Details:</u>	Found no application in the residential sector

## Energy efficiency obligation schemes (Art.7/EED)

### Bulgaria



<u>Name</u>	
<u>Link:</u>	<a href="http://www.eneffect.bg/ee-infocenters/Legislation/0-NPDEE_2017.pdf">www.eneffect.bg/ee-infocenters/Legislation/0-NPDEE_2017.pdf</a> ; <a href="http://www.seea.government.bg/documents/Art.7_EED_2014-2020.pdf">www.seea.government.bg/documents/Art.7_EED_2014-2020.pdf</a>

<u>Duration:</u>	2016 – ongoing
<u>Recipients:</u>	Any project which can prove savings in final energy consumption
<u>Managing body:</u>	Individual obligated parties
<u>Volume of funding:</u>	n/a
<u>Own contribution:</u>	n/a
<u>Details:</u>	The listed individual obligated parties must prove annual final energy savings according to individual targets defined based on their operating volumes and published by the Sustainable Energy Development Agency. However, there are different methodologies for evidencing the savings, and the initial expectations for increased investments have not been met as obligated parties found other options to report on their targets. However, if the scheme is improved and the control is strengthened, obligated parties may be motivated to invest in the residential sector. This is proven by the establishment of strong and active ESCO subsidiaries by most energy distribution companies, as their experience working with residential clients could be utilised.

## Hungary



<u>Name</u>	Hungary's National Energy Efficiency Action Plan until 2020
<u>Link:</u>	<a href="https://ec.europa.eu/energy/sites/ener/files/documents/hungaryActionPlan2014_en.pdf">ec.europa.eu/energy/sites/ener/files/documents/hungaryActionPlan2014_en.pdf</a>
<u>Duration:</u>	From 2021
<u>Recipients:</u>	Not clear yet
<u>Managing body:</u>	Ministry of Innovation and Technology
<u>Volume of funding:</u>	Not clear yet
<u>Own contribution:</u>	Not clear yet
<u>Details:</u>	By 2021 energy efficiency schemes under the Energy Efficiency Directive were organised as alternative measures (grant and loan schemes financed from EU sources.). From 2021 energy efficiency obligation schemes will be developed as the ultimate source of energy efficiency interventions including the renovation of residential buildings. The scheme is under development, no information is expected by mid-2021.

## Emissions trading

### Hungary



<b>Name</b>	Grant scheme for renovation of MFABs; see “Panelprogram” and “The Warmth of Home” grant schemes above
<b>Link:</b>	<a href="https://magyarnarancs.hu/publicisztika/ujabb-szunetjel-115763">magyarnarancs.hu/publicisztika/ujabb-szunetjel-115763</a>
<b>Duration:</b>	2008-2009; 2015
<b>Recipients:</b>	Condominiums and housing cooperatives through the scheme
<b>Managing body:</b>	n/a
<b>Volume of funding:</b>	n/a
<b>Own contribution:</b>	n/a
<b>Details:</b>	The grant schemes Panelprogram and The Warmth of Home detailed above were partly funded by emissions trading.

### Lithuania



<b>Name</b>	Climate change programme
<b>Link:</b>	<a href="https://www.apva.lt/call/kvietimas-teikti-paraiskas-saules-energijos-technologiju-silumos-siurbliu-ir-silumos-saugyklu-panaudojimo-centralizuotais-tinklais-tiekiamos-silumos-energijai-gaminti-pakeiciant-iskastinio-kuro-naud">www.apva.lt/call/kvietimas-teikti-paraiskas-saules-energijos-technologiju-silumos-siurbliu-ir-silumos-saugyklu-panaudojimo-centralizuotais-tinklais-tiekiamos-silumos-energijai-gaminti-pakeiciant-iskastinio-kuro-naud</a>
<b>Duration:</b>	Unlimited, started June 2020 (until funds last). As of 31 December 2020, no funds were used so far.
<b>Recipients:</b>	Central (district) heat providers; independent heat producers
<b>Managing body:</b>	APVA ( <a href="https://www.apva.lt/en">www.apva.lt/en</a> )
<b>Volume of funding:</b>	€6 million total. Max. grant amount per applicant: €1.45 mio.
<b>Own contribution:</b>	Large enterprises: 30% subsidy + 70% own contribution. SMEs: 40% subsidy + 60% own contribution. Certain supported regions get 10 p.p. extra subsidy (30+10 or 40+10).

<b>Details:</b>	This programme focuses on greater integration of renewables (including solar PV and solar thermal as well as heat pumps) in central heating networks. More here: <a href="https://bit.ly/2WYensv">bit.ly/2WYensv</a> (in Lithuanian)
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## Low-income financial support (fuel subsidies)

### Bulgaria



<b>Name</b>	Heating subsidy
<b>Link:</b>	<a href="http://www.mlsp.government.bg/pomoshchta-za-otoplenie-prez-zimniya-sezon-shche-bde-blizo-500-lv">www.mlsp.government.bg/pomoshchta-za-otoplenie-prez-zimniya-sezon-shche-bde-blizo-500-lv</a>
<b>Duration:</b>	Continuous
<b>Recipients:</b>	Bulgarian households eligible under the conditions set by the relevant ordinance ( <a href="http://www.mlsp.government.bg/uploads/1/zakoni/naredba-rd-07-5-17.pdf">www.mlsp.government.bg/uploads/1/zakoni/naredba-rd-07-5-17.pdf</a> )
<b>Managing body:</b>	Agency for Social Support
<b>Volume of funding:</b>	Fixed subsidy (BGN 495, ~€250 for 2020-2021)
<b>Own contribution:</b>	n/a
<b>Details:</b>	For the 2020-2021 heating season, the funds allocated by the state in support of fuel subsidies amount to nearly BGN 130 million and are used mainly for purchasing bad-quality wood and coal. They act as an important source of income for about 260,000 Bulgarian households. They are ineffective in the long term because they address the consequences of the problem of energy poverty rather than its causes. Furthermore, they have an adverse effect on air quality by stimulating the use of polluting sources of energy.

### Hungary



<b>Name</b>	Utility cost reduction programme (Rezsicsökkentés)
<b>Link:</b>	<a href="http://www.kormanyhivatal.hu/download/2/09/01000/Lakoss%C3%A1gi%20%C3%A1j%C3%A9k%C3%B3.pdf">www.kormanyhivatal.hu/download/2/09/01000/Lakoss%C3%A1gi%20%C3%A1j%C3%A9k%C3%B3.pdf</a>
<b>Duration:</b>	2013 – ongoing
<b>Recipients:</b>	Every consumer



<u>Managing body:</u>	Ministry of Innovation and Technology (ITM); Consumer Protection Authority; National Utilities Ltd.
<u>Volume of funding:</u>	Not applicable, as it depends on the market price level. Currently the public company makes a profit on the programme.
<u>Own contribution:</u>	-
<u>Details:</u>	A public company (National Utilities Ltd.) sells energy for households at a regulated price, which in 2013 could not be higher than 90% of the market price level that year. At the beginning, it led to decreasing utility costs for households, but the energy market prices started to decline after 2014, which was not followed by the regulated prices of National Utilities Ltd., which are attached to the price level of 2013. It means that the regulated price is currently higher than it would be without the scheme. Also, the programme does not include social targeting, meaning that even if savings were realised by consumers, the higher the energy consumption of a household is, the bigger the subsidy it receives. The programme thus helps high-income groups more than low-income groups (although currently, this means the state benefits more from the better off).

<b>Name</b>	<b>Gas price subsidy (Gázártámogatás)</b>
<u>Link:</u>	
<u>Duration:</u>	2003-2006
<u>Recipients:</u>	Almost every gas consumer (see details below)
<u>Managing body:</u>	Ministry of Social Affairs and Labour
<u>Volume of funding:</u>	€749 million (262 billion HUF) in 3 years
<u>Own contribution:</u>	-
<u>Details:</u>	The most accessible and by far the most costly programme in the 2000s was the gas price subsidy, which was available on a universal basis. It was independent of income for all residential gas consumers whose annual consumption did not exceed a maximum which was quite high, and the level of support also had only two categories depending on the level of consumption. The majority of gas-consuming households, at least 3.1 million, received support. Retired and multi-children households could also receive additional district heating and gas price subsidies.

<b>Name</b>	<b>Gas price subsidy II (Gázártámogatás II)</b>
<u>Link:</u>	
<u>Duration:</u>	2007-2011

<u>Recipients:</u>	Households between the first and seventh income decile
<u>Managing body:</u>	Ministry of Social Affairs and Labour
<u>Volume of funding:</u>	~€900 million (315 billion HUF) in 5 years
<u>Own contribution:</u>	-
<u>Details:</u>	The new system of gas price subsidy from 2006 was socially more targeted and the amount of subsidy received by poor households was higher. However, it still could not reach the most vulnerable groups who do not use gas but other materials (e.g. firewood) for heating – around half a million households.

## Lithuania



<b>Name</b>	Social support for low-income families (part of heating and hot water costs compensated)
<b>Link:</b>	
<b><u>Duration:</u></b>	Permanent. Renewed every year: families have to reapply every 12 months
<b><u>Recipients:</u></b>	Vulnerable families under certain income/wealth threshold
<b><u>Managing body:</u></b>	Distributed via municipalities. Specialised system: <a href="http://www.spis.lt">www.spis.lt</a>
<b><u>Volume of funding:</u></b>	Not applicable. In January 2021, in total 73,200 families in Lithuania received this type of monetary support. Total monthly state expenditures (Jan 2021): €2.46 million. For comparison: same figures in January 2020, 76,100 families and €2.08 million
<b><u>Own contribution:</u></b>	Not applicable
<b><u>Details:</u></b>	“Socialinės paramos šeimai informacinė sistema SPIS” (Welfare for families’ informational system) is created to collect information and distribute energy subsidies. Heat and hot water subsidies are provided according to a strict and complex set of criteria (more here, in English: <a href="https://bit.ly/2EPZsrJ">bit.ly/2EPZsrJ</a> )

## Ukraine



<b>Name</b>	Housing subsidies: Resolution of the Cabinet of Ministers of Ukraine No. 848 dated 21.10.1995
<b>Link:</b>	

<u>Duration:</u>	1995 to present
<u>Recipients:</u>	Households
<u>Managing Body:</u>	Cabinet of Ministers of Ukraine
<u>Volume of funding:</u>	$Po = K_d / K_r * Pr$ , where Po - amount of payment of households for provided housing and communal services; $K_d$ - household income; $K_r$ - basic income; $Pr$ - base rate of payment. Applies to payments for: electricity; heating; liquefied gas; stove heating; natural gas.
<u>Own contribution:</u>	20%
<u>Details:</u>	Housing subsidies are granted if the payment for housing and communal services exceeds 20% of the household's income. In this case, the state compensates the household for the excess payment.

## Energy Poverty Alleviation

### Hungary



<u>Name</u>	Utility subsidy by the Municipality of Budapest (Fővárosi rezstámogatás)
<u>Link:</u>	
<u>Duration:</u>	1999-2012; 2020
<u>Recipients:</u>	Low-income and disabled consumers/vulnerable consumers living in Budapest
<u>Managing body:</u>	Network Foundation; Municipality of Budapest
<u>Volume of funding:</u>	~€2.45 million in 2009 (856 million HUF)
<u>Own contribution:</u>	-
<u>Details:</u>	The Municipality of Budapest established a non-profit organisation (Network Foundation / Hálózat Alapítvány) which provides financial support for low-income consumers by subsidising their utility bills for one year, providing allowance for repaying arrears or extraordinary aid in case of crisis. The foundation was funded by the Municipality of Budapest, but could collect private donations as well. It was shut down in 2012, but has been available again since September 2020. Each beneficiary receives 20 000 HUF (€56) per year. According to the new Mayor of Budapest, they are currently struggling to reach the target group, but they will continue the programme.



# ComAct

Community  
Tailored Actions  
for Energy Poverty  
Mitigation

<b>Name</b>	Housing allowance by local municipalities (Lakásfenntartási támogatás)
<b>Link:</b>	<a href="http://www.habitat.hu/files/lft_habitat_20150225_2.pdf">www.habitat.hu/files/lft_habitat_20150225_2.pdf</a>
<b>Duration:</b>	2004-
<b>Recipients:</b>	Low-income households
<b>Managing Body:</b>	Municipalities
<b>Volume of funding:</b>	~€42.86 million – €71.43 million/year (15-25 billion HUF/year)
<b>Own contribution:</b>	-
<b>Details:</b>	People on low incomes could apply to local municipalities/districts for a small allowance (4000-4500 HUF/month; €11.40-12.80 /month) for covering housing or energy costs. Between 2004 and 2015, 90% of the allowance was provided by the state, 10% was provided by the municipalities. From 2015 the Hungarian state withdrew from financing the allowance and let the municipalities decide whether they keep the programme or not. Although the amount of the allowance was too small even before 2015 and the programme was unable to reach many eligible families, it was one of the last socially targeted state benefits. The number of households receiving the allowance dropped by around 50% and the amount dropped by around 60%. Currently around 1 million people live in settlements where housing allowance is not available at all.

<b>Name</b>	Socially targeted subsidy for firewood (Szociális tűzifa)
<b>Link:</b>	
<b>Duration:</b>	2018-
<b>Recipients:</b>	Households in villages
<b>Managing body:</b>	Municipalities
<b>Volume of funding:</b>	~€8.57 million – €14.29 million/year (3-5 billion HUF /year)
<b>Own contribution:</b>	-
<b>Details:</b>	Municipalities of settlements with a population of less than 5000 can apply for the government allowance. They purchase fuel and distribute it among households in need under certain conditions. The fairness of distribution, both nationally and locally, is questionable. Since 2014, in addition to firewood, this source can also be used for lignite. Initially, 84 municipalities took advantage of this opportunity, but in 2019, their number increased to 252. Not relevant for MFABs.



## Clean air programmes

### Bulgaria



<b>Name</b>	Operational Programme "Environment"
<b>Link:</b>	
<b>Duration:</b>	2016-2021, expected continuation
<b>Recipients:</b>	Bulgarian households in single-family houses in selected cities
<b>Managing body:</b>	Municipalities: Sofia, Burgas, Vidin, Dimitrovgrad, Montana, Plovdiv and Smolyan
<b>Volume of funding:</b>	100% subsidies for new heating installations (pellet boilers, heat pumps) – total volume of €56 million
<b>Own contribution:</b>	n/a
<b>Details:</b>	Although there are no implicit eligibility criteria related to the income of the households, it is perceived that the programme is primarily targeting vulnerable households, as for Sofia and other municipalities specific conditions are introduced. The projects do not, however, bear any relation to the social support programmes (the heating subsidies) or to the renovation programmes and no research on the impact on poverty alleviation is planned, which is a definite deficiency. In the best-case scenarios, these sources of funding (air quality programmes, fuel subsidies and renovation programmes) have to be coordinated under the supervision of the local authorities.

<b>Name</b>	LIFE Programme
<b>Link:</b>	
<b>Duration:</b>	2019-2021
<b>Recipients:</b>	Bulgarian households in single-family houses in selected cities
<b>Managing body:</b>	Municipalities: Sofia, Burgas, Veliko Tarnovo, Montana, Stara Zagora
<b>Volume of funding:</b>	100% subsidies for new heating installations (pellet boilers, heat pumps) – total volume of €16.7 million
<b>Own contribution:</b>	n/a
<b>Details:</b>	Same as above, the difference is in the source of financing, volume of funding and target municipalities: although there are no implicit eligibility criteria related to the income of the households, it is perceived that the programme is primarily targeting vulnerable households, as for Sofia and other municipalities specific conditions are



introduced. The projects do not, however, bear any relation to the social support programmes (the heating subsidies) or to the renovation programmes and no research on the impact on poverty alleviation is planned, which is a definite deficiency. In the best-case scenarios, these sources of funding (air quality programmes, fuel subsidies and renovation programmes) have to be coordinated under the supervision of the local authorities.

## 4. Most relevant renovation programmes in the target region

Bulgaria



<b>Name</b>	National Programme for Energy Efficiency in the Multifamily Residential Buildings
<b>Link:</b>	<a href="http://www.mrrb.bg/en/energy-efficiency/energy-efficiency-of-multi-family-residential-buildings-national-programme">www.mrrb.bg/en/energy-efficiency/energy-efficiency-of-multi-family-residential-buildings-national-programme</a>
<b>Duration:</b>	2015-2020, continuation expected
<b>Geographic scope:</b>	National
<b>Recipients:</b>	Homeowners' associations
<b>Managing body:</b>	Methodology: Ministry of Regional Development Financial operations: Bulgarian Development Bank Operational management: Municipalities
<b>Other stakeholders involved:</b>	Project implementation: Structural and energy auditors, designers, construction companies, building supervision, product and component suppliers Programme design: Branch chambers, professional organisations, NGOs, financing bodies, facility managers
<b>Volume of funding:</b>	100% subsidy rate for all activities related to the execution of the project (structural and energy audit, design, construction works, supervision). Total budget of €1 billion
<b>Financing method:</b>	Grants
<b>Funding method:</b>	Public funding – national budget
<b>Own contribution:</b>	n/a
<b>Target socioeconomic group:</b>	None
<b>Target housing situation:</b>	Multifamily apartment buildings
<b>Eligible energy efficiency measures:</b>	Thermal insulation – roof, floor, facades, window replacement, LED lighting in common spaces. Solar thermal installations and revision of heating installation eligible in the first stage of implementation but blocked by lowering the cost ceiling
<b>Targeted energy performance:</b>	Energy class C: 191-240 kWh of primary energy for the whole energy consumption of the building

<u>Process of application:</u>	After agreeing their intention to participate at their general assembly with 90% of the votes, the homeowners' associations submit the application documentation to the local authority. The local authority concludes a contract with the regional governor as representative of the state and with the Bulgarian Development Bank. After receiving the funds, the municipality is responsible for all tendering procedures and supervision.
<u>Details:</u>	Starting in 2016, the programme was dedicated to the renovation of multifamily residential buildings up to energy class C at 100% grant rate, on a first-come, first-served basis. Up to January 2021, the renovation of 1,923 buildings has been completed. No social criteria for eligibility were applied, meaning that even high-income households were eligible for the 100% subsidy. No technical monitoring of the results was applied – the statements about the energy savings were based on “normalised” energy audits and surveys with beneficiaries. Although the measures definitely had a positive impact on households at risk of energy poverty (reaching up to 50% of the total number of households as per expert estimation), the results could be much better if higher energy targets and differentiated eligibility criteria were applied. However, despite the slow start, the majority of the beneficiaries are happy with the results and there is growing interest in the continuation of the programme.
<u>Best case practices:</u>	<p>The municipality of Burgas was one of the most active in the programme, with more than 200 buildings renovated. Being one of the first to develop an internal administrative support structure and to convince the HOAs to apply, it used the relatively generous conditions of the first stage of the programme to integrate solar thermal installations coupled to the district heating system and to apply attractive design solutions and district-level branding.</p> 
<u>Limitations:</u>	Apparently, the scope of the programme was relatively small, as €1 billion was sufficient for only about 4% of the eligible buildings. Given the fact that the execution of the programme spread over five years, it is obvious that at this rate, there is no way that all households will be served. As no other programmes or financing instruments offering different conditions can compete, it also prevented the successful application of market-based energy efficiency services. At the social level, it sent the wrong signal to citizens that they were not responsible for maintaining and renovating their own property, which can have a very negative long-term impact on the application of more sustainable financing mechanisms requiring owner contributions. From the point of view of energy saving, the low minimal requirements do not exploit the full energy saving potential of the

	buildings and can have a blocking effect on further renovation in the foreseeable future.
Pathways for improvement:	The Bulgarian government has applied for continuation of the programme under the EU Recovery and Resilience Mechanism under similar conditions and preserving the 100% grant rate. However, it is obvious (as also confirmed by the national long-term renovation strategy) that public funds will not be sufficient to increase the scope of the action, so private financing should be attracted. In this regard, it is suggested that a roadmap for gradual decreasing of the grant component is applied. It has to be accompanied by establishment of complementary financing mechanisms at national and local level (securing access for energy-poor households) and involvement of various energy service providers, in parallel with a large-scale communication campaign to fight off possible social repercussions.

## Hungary



Name	The Warmth of Home: Grant scheme for the renovation of MFABs
Link:	<a href="http://www.pafi.hu/_pafi/palyazat.nsf/ervdocidweburlap/2FDA72FBEF9F8340C1257DF7004851E4">www.pafi.hu/_pafi/palyazat.nsf/ervdocidweburlap/2FDA72FBEF9F8340C1257DF7004851E4</a>
Duration:	2015
Geographic scope:	National
Recipients:	Condominiums and housing cooperatives
Managing body:	Ministry of National Development
Other stakeholders involved:	HOAs, construction companies, energy auditors
Volume of funding:	~€28.6 million (10 billion HUF)
Financing method:	Grants
Funding method:	EU funds (KEHOP) and national funding
Own contribution:	Max. 50%
Target socioeconomic group:	None

<u>Target housing situation:</u>	Multifamily apartment buildings
<u>Eligible energy efficiency measures:</u>	<p>Renovation packages corresponding with different levels of subsidy intensity:</p> <ul style="list-style-type: none"> <li>- New windows and doors on the facade</li> <li>- Thermal insulation of the façade and the ceiling</li> <li>- Modernisation of the engineering system of the building</li> <li>- Installation of renewable energy sources</li> </ul>
<u>Targeted energy performance :</u>	The goal was to increase the energy classification of the participating buildings by two categories.
<u>Process of application:</u>	After agreeing on the intention to participate at their general assembly with a simple majority (in the case of condominiums) of the votes or 50%+1 of all the owners (in the case of housing cooperatives), the homeowners' associations submitted the application documentation to the central electronic system. The decision was made by the Ministry and in case of a successful application, a grant contract was signed by the Ministry and the applicant.
<u>Details:</u>	One of the sub-programmes of The Warmth of Home is often called Panelprogram III., as it targeted MFABs similarly to the grant schemes of 2001-2009. The new funding was available for buildings built with both traditional and industrialised technology. Unlike the schemes before 2010, this grant required the applicants to choose from certain renovation packages corresponding with different levels of intensity. Those who applied for a more costly package (e.g. renewables) had to guarantee a certain level of energy saving, but got a higher level of subsidy up to 50%. Together with the 2001-2009 scheme around 23% of flats in buildings built with industrial technology in Budapest were renovated.
<u>Best case practices:</u>	It is hard to highlight any concrete practices as the programme did not contain any well-known pilot projects. As it was a centralised programme, which ran out of funding very soon, the beneficiaries are dispersed across the country; we do not know about particular cities or areas with outstanding performance.
<u>Limitations:</u>	The programme was not socially targeted and it excluded buildings with vulnerable or low-income communities due to the requirement of own contribution and post-financing. Due to the small budget and the fact that it was a first-come, first-served scheme, buildings with an efficient management and a strong business network had much higher chances to participate, and made it almost impossible for less organised and marginalised buildings to apply.
<u>Pathways for improvement:</u>	<p>We do not have any information about the government's plans regarding the European Resilience and Recovery Mechanism; however, a better targeted and more reliable version of this grant scheme would be a useful and logical way of using the EU funds. The most important ways to improve the programme would be:</p> <ul style="list-style-type: none"> <li>- Increasing the overall budget</li> <li>- Decreasing the rate of own contribution based on social targeting</li> <li>- Longer deadline, more reliable conditions for the long term</li> </ul>



- Providing assistance for the buildings (technical, administrative etc.), ensuring the possibility of participation for less organised and/or marginalised communities.

## Lithuania



<b>Name</b>	Extra support for solar/heat pumps ("RES subsidy")
<b>Link:</b>	<a href="https://bit.ly/34Z3fjL">bit.ly/34Z3fjL</a> (in Lithuanian)
<b>Duration:</b>	2020 was the first year. The programme is yet to become permanent; up to €2 million funding foreseen in the 2021 climate change support programme budget. First call opened 28 May, 2020. The call is open and the programme is ongoing while funds last.
<b>Geographic scope:</b>	National
<b>Recipients:</b>	Lithuanian households
<b>Managing body:</b>	BETA (Housing Energy Efficiency Agency) <a href="http://www.betalt.lt/en">www.betalt.lt/en</a>
<b>Other stakeholders involved:</b>	Environment Committee of the Lithuanian Parliament Ministry of Environment Lithuanian Solar Energy Association
<b>Volume of funding:</b>	€2 million total per year (sufficient for 5-8 multi-family houses, dependant on size/number of flats), financed from climate change programme
<b>Financing method:</b>	Grants
<b>Funding method:</b>	Climate change funding programme is financed by emissions trading scheme surpluses and amounts to €100-200 million per year in available funds. Maximum amounts to be involved, if this (still in pilot, or rather 'in the making') scheme is successful, can be increased substantially from the current €2 million p.a.
<b>Own contribution:</b>	30% subsidy in addition to the 30% specified in another renovation scheme, under "Multi Apartment Building Renovation (Modernisation) Programme". This brings total subsidy to 51%.
<b>Target socioeconomic group:</b>	None
<b>Target housing situation:</b>	Multifamily apartment buildings
<b>Eligible energy efficiency measures:</b>	The decentralised carbon-intensive heating (coal, peat, heating oil) should be replaced by a combination of solar photovoltaic self-generated electricity in combination with heat pumps.

<u>Targeted energy performance:</u>	1) The scheme provides a cost-efficient solution to reach near-zero carbon emissions in the house 2) In the long run, the combination provides a way to (self-)produce energy/heat and cut energy bills.
<u>Process of application:</u>	Applications may be submitted by managers of common use objects of multi-apartment building, persons providing administration services for the implementation of a multi-apartment building renovation project, municipal energy efficiency improvement programme implementation administrators, as well as other persons authorised by owners of multi-apartment buildings and other premises.
<u>Details:</u>	Own contributions. Why 51%? Applicants get 30% “ordinary” subsidy already, leaving only 70% to be covered by their own funds. The additional 30% “RES subsidy” is applied to this remaining 70%, not the whole project amount. This makes the effective subsidy rate $(1-0.3)*0.3 + 0.3 = 0.51$ , or 51%. More: <a href="http://bit.ly/34Z3fjL">bit.ly/34Z3fjL</a> (in Lithuanian).
<u>Best case practices:</u>	There are already four funded projects: 1. M. K. Čiurlionio g. 112, Druskininkai project No. AEI2- ALJS60389K. Two-storey house, 6 flats in total. Building year 1988, brick, 385 sq. m, district heating. 2. Klaipėdos g. 4, Priekulės m., Klaipėdos r. sav. project No. AEI1- KLJS70784. 3. J. Basanavičiaus g. 18, Varėna project No. AEI3- ALJ50366. Four-storey house, 14 flats in total. Building year 1984, brick, 699 sq. m, district heating. 4. Jonavos g. 3, Bukonių k., Jonavos raj. project No. AEI4- KJS70976. Two-storey house, 6 flats in total. Building year 1987, panel house, 351 sq. m, local heating.
<u>Limitations:</u>	Under the terms of the call, the compensation is granted to those beneficiaries who have already implemented a multi-apartment building renovation project and have reached at least 40% calculated energy savings and energy efficiency class C at least. Currently running projects which plan to achieve at least 40% calculated energy savings and energy efficiency class C at least are also eligible for state support. Exceptions apply only to those buildings for which the Law on Construction of the Republic of Lithuania does not establish minimum mandatory energy performance requirements.
<u>Pathways for improvement:</u>	Lithuanian Consumer Alliance is confident that the scheme will carry over to 2021, 2022 and beyond. However, additional advocacy work is needed to make it long-term, increase funding, and accomplish and widely communicate the success of first pilot projects financed by this scheme.

#### North Macedonia



Name	Habitat for Humanity Macedonia – Energy Efficient Homes
Link:	<a href="http://www.habitat.org.mk">www.habitat.org.mk</a>

<u>Duration:</u>	2009 – ongoing
<u>Recipients:</u>	Apartment owners and HOAs in multi-apartment buildings for energy efficiency upgrades, homeowners of single houses for energy efficiency renovation including homes in rural areas and marginalised communities.
<u>Managing body:</u>	Habitat Macedonia, in cooperation with Saving House Moznosti and MFI Horizonti
<u>Volume of funding:</u>	<p>Revolving fund of US\$900,000</p> <p>Period of funding: 3 years for loans for windows, doors; up to 7 years for façade</p> <p>Financial terms: 3-6% interest rate, subvention from municipalities for façade 30% (2 municipalities covered 100% of costs for façade, but that practice is not in place anymore)</p> <p>Average loan amount: €2,000</p> <p>Other benefits from implementation of financing mechanism: Providing subvention from municipal budget for energy upgrades of multi-family apartment buildings, motivating microfinance institutions to develop and offer loans to vulnerable groups and to homeowners in rural areas.</p>
<u>Own contribution:</u>	n/a
<u>Details:</u>	<p>The revolving fund was established in 2009 and is used through five different financial models: direct loans to the homeowners; with municipal subsidies; for HOAs; to specialised companies (construction company); through microfinance institutions. The loans for energy efficiency for individual houses are distributed through two partner microfinance institutions: Moznosti and Horizonti.</p> <p>The main objective is to develop sustainable financial models and a set of activities to help Macedonian households living in MFABs to reduce their vulnerability to energy price increases and decrease air pollution. Through these activities six financial models were developed that are supporting households to reduce energy consumption by 20-40%. The programme offered loans to HOAs, developing the first such product as a prerequisite to improving energy efficiency in MFABs. Offering this financial model, the door for lending to HOAs was open, and with that more opportunities for energy efficiency upgrades in MFABs. Partnering microfinance institutions developed and delivered loan products for individual houses, covering vulnerable groups and rural areas.</p> <p>The process in MFABs goes through five steps:</p> <ol style="list-style-type: none"> <li>1. Promoting financial opportunity for energy efficiency upgrades among homeowners</li> <li>2. Facilitating the process of providing consent among homeowners to start retrofitting of MFAB</li> <li>3. Offering loans to homeowners/HOAs and examining creditworthiness (if loans go directly from Habitat Macedonia) or linking them with microfinance partners</li> <li>4. Providing loans for energy efficiency upgrades for homeowners using different financial models</li> <li>5. Monitoring loan repayment and energy efficiency retrofitting, providing technical advice for homeowners when needed.</li> </ol>



There are strictly defined roles in the process:

Habitat Macedonia: Facilitating homeowners to reach consent and starting with retrofitting; offering different financial models for energy efficiency upgrades; providing retail loans to homeowners, including HOAs; providing technical support to homeowners; involving local governance in the process of energy retrofitting of MFABs and thus providing sustainable mechanisms for upgrades of housing stock.

MFI Horizonti and Moznosti: providing loans for homeowners in individual houses, covering vulnerable groups and homeowners in rural areas.

Private companies: replacement of windows and doors, façade renovations, roofing, technical assistance, energy audits.

Following this programme, annual reductions of CO<sub>2</sub> emissions of 3,670 tonnes and annual energy savings of 7,910 MWh have been achieved.

## Ukraine



<b>Name</b>	“ENERGODIM” apartment buildings modernisation support programme of the state institution “Energy Efficiency Fund”
<b>Link:</b>	<a href="http://eefund.org.ua/programa-energodim">eefund.org.ua/programa-energodim</a>
<b>Duration:</b>	2019-2023
<b>Geographic scope:</b>	National
<b>Recipients:</b>	Homeowners’ associations (HOAs)
<b>Managing body:</b>	Methodology: Supervisory Board on the Energy Efficiency Fund Financial operations: authorised banks Operational management: HOAs
<b>Other stakeholders involved:</b>	Project implementation: energy auditors, designers, energy service companies, technical inspection, suppliers of materials and equipment, financial institutions Programme design: project managers

<u>Volume of funding:</u>	€92 million
<u>Financing method:</u>	Via authorised banks
<u>Funding method:</u>	Co-funding by the state budget, local authority budgets, and own funds of the HOAs
<u>Own contribution:</u>	Eligible construction measures: 40% for the first 500 applications for participation approved by the fund; 60% for subsequent applicants Eligible project preparation and implementation measures: 30%
<u>Target socioeconomic group:</u>	None
<u>Target housing situation:</u>	Multifamily apartment buildings
<u>Eligible energy efficiency measures:</u>	Installation of commercial heat metering units, replacement and modernisation of the heating system of an apartment building, modernisation of the hot water supply system, installation of heat metering distribution units, replacement or repair of windows and doors, thermal insulation of house structures, modernisation of lighting systems in common areas, ventilation systems (Packages A and B provide for 25 types of energy efficiency measures)
<u>Targeted energy performance:</u>	The total percentage of energy savings after the implementation of energy efficiency measures should not be less than 20% of total energy consumption
<u>Process of application:</u>	<p><b>PHASE I:</b> The HOA decides by a two-thirds majority to conduct a preliminary energy audit. The auditor prepares the energy certificate of the building and fills in the recommendation report (including a description of the project of energy efficiency measures for the house). At the general meeting of condominium, members decide on whether to participate in the programme, determine the list of energy-efficient measures (package A or B) and the maximum cost of the project.</p> <p>The HOA fills in the application for participation in the programme and prepares accompanying documents. The same application covers reimbursement of the costs of the preliminary energy audit.</p> <p>The HOA selects the partner bank, opens a current account with it (if the condominium does not have a current account in the partner bank) and submits Application 1 and accompanying documents for participation in the programme through the partner bank.</p> <p><b>Tranche 1.</b> After consideration of the application by the Energy Efficiency Fund, the HOA will receive a written and electronic notification of confirmation of intentions (guarantees) of partial reimbursement of the cost of energy efficiency measures specified in application 1, subject to their proper implementation. The condominium receives tranche 1 for the conducted energy audit (up to 70% of energy audit costs) within 30 working days from the date of sending the notification of approval of application 1.</p> <p><b>PHASE II:</b> Project documentation and expertise</p>



	<p>At its general assembly, the HOA decides to involve a designer to develop design documentation (works, materials, scope of work, procedure) and examination (this can be done during the first general meeting).</p> <p>If necessary, the HOA takes a loan to implement all measures.</p> <p>Application 2. After receiving the project documentation and the conclusion of the expert organisation, the HOA through the partner bank submits application 2 and accompanying documents for approval of the project and partial reimbursement of the project documentation and its examination.</p> <p><b>Tranche 2.</b> After consideration of application 2 by the fund, the HOA will receive a written and electronic notification of approval and confirmation of the intention to reimburse the cost of the energy-efficient measures. The HOA receives tranche 2 for reimbursement of the cost of development of project documentation and examination (up to 70% of costs) within 30 working days from the date of notification of approval of application 2.</p> <p><b>STAGE III:</b> Construction works and verification. The HOA conducts energy-efficient activities (according to the project documentation) and independently selects contractors to perform the work. During the works, technical and architectural supervision should be carried out (this may be a representative of the design organisation that developed the project documentation or another specialist, as well as a specialist in architectural supervision).</p> <p><b>Application 3.</b> After carrying out all energy efficiency works, certification of energy efficiency of the house and inspection of engineering systems that have undergone energy modernisation, the HOA submits application 4 and accompanying documents for verification of measures taken and partial reimbursement of energy efficiency measures. The Energy Efficiency Fund verifies energy efficient works and financially evaluates the application.</p> <p><b>Tranche 3.</b> After consideration of application 4 by the Energy Efficiency Fund, HOAs will receive a written and electronic notification of approval of application 3, confirmation of eligible costs and the amount of the grant (which includes the amount of reimbursement for energy efficiency measures, technical and architectural supervision, energy certification, inspection of engineering systems). HOAs receive tranche 3 for energy efficiency measures within 30 working days from the date of notification of approval of application 3.</p> <p>Partial reimbursement of energy efficiency measures is 40% of the cost of eligible measures/works for the light package (A) and 60% for the integrated package (B). The amount of compensation for energy certification and inspection of engineering systems is up to 70%.</p>
<u>Details:</u>	From August 2019 to March 2021, 397 applications for participation in the programme were submitted throughout Ukraine. To date, only two projects have been completed.
<u>Best case practices:</u>	The “Govorova 5” HOA in Odessa has implemented the “light” package A, which includes energy-efficient measures to replace common boilers, overhaul of utilities, dispatching of boilers, installing modern fire alarms, insulating pipelines and replacing window units.





In Odessa, the energy modernisation of apartment buildings is being successfully implemented with 100% financing of all activities by the co-owners of the house.

#### Limitations:

Only condominiums have the right to financial support under the Energodom programme. Given that condominiums account for only 10% of the total number of apartment buildings, it is obvious that most Ukrainian citizens are limited in receiving grant support in the energy modernisation of their homes. From January 1, 2021, the state programme “Warm Credits” was stopped, according to which HOAs and housing cooperatives could carry out energy modernisation of their houses, with the state repaying 40% of the loan. Local budgets subsidised 35% of the cost of purchasing equipment and construction and installation work under the Warm Credits programme.

There was no monitoring of the Warm Credits programme. The disadvantage of “Warm Credits” was that HOAs/housing cooperatives were obliged to obtain a loan from a bank for the purchase of equipment and materials at high interest rates. At the same time, despite its shortcomings, “Warm Credits” was the most successful programme, as it successfully utilised national, local and private sources of financing.

#### Slovakia



Name	State Housing Development Fund (SHDF)
Link:	<a href="http://www.sfrb.sk">www.sfrb.sk</a>
Duration:	1996 – present
Geographic scope:	National

<u>Recipients:</u>	<ul style="list-style-type: none"> <li>• Individuals</li> <li>• Households</li> <li>• Associations of owners</li> <li>• Villages and autonomous regions</li> <li>• Building administrators</li> <li>• Non-profit organisations</li> </ul>
<u>Managing body:</u>	Ministry of Transport, Construction and Regional Development of the Slovak Republic
<u>Other stakeholders involved</u>	District-level municipalities European Regional Development Fund (ERDF) JESSICA Fund State Guarantee and Development Bank
<u>Volume of funding:</u>	€168 million (for 2019)
<u>Funding method:</u>	<p>As a result of the successful uptake of funds under the 2007-2013 programming period, a tripartite agreement between the Ministry of Agriculture and Rural Development, the Ministry of Transport and Construction and the State Housing Development Fund (SHDF) was reached regarding the implementation of the financial instrument to increase the energy efficiency of buildings through the renovation of residential buildings.</p> <p>The amount devoted to providing SHDF loans for renovation of the (mostly) multi-family buildings is substantial compared to the size of the country. However, it is a revolving fund, so after 15 years of operation by now approximately 40% of the funds are coming from the state (CO<sub>2</sub> emission and EU funds) budget, while about 60% are repayments of the previous loans, so the fund is becoming partly self-sustainable.</p>
<u>Financing method:</u>	<p>There are different interest rate levels for the different types of interventions. However, if an applicant chooses to combine different types of interventions, they get a bonus on the interest rate: e.g. combining two interventions results in choosing the lower rate from the two possibilities, combining three interventions means the lowest interest rate less 0.5%. Even a 0% interest rate can be achieved. By this combined interest rate system, the Ministry aims to encourage more complex interventions.</p> <p>From 2013 SHDF loans are financed not only from national resources but from the resources of the JESSICA Fund. These were used to finance purely the insulation of multifamily buildings with very similar conditions to the original SHDF loan, and operated by the same system. From 2015 JESSICA finances practically all the same renovations as the SHDF itself. The only difference between the two loans is in the duration of monitoring of consumption of heat: SHDF requires three years' monitoring while JESSICA requires five years. In practice the applicant submits the application to the SHDF and the Fund will allocate the financing from the available budget, whether state budget or JESSICA Fund.</p>

<u>Own contribution:</u>	The preferential loan can reach 75% of the investment costs. The 25% own share can also be financed throughout financial institutions in the form of commercial loans. The maximum repayment term of the loan is 20 years.
<u>Target socioeconomic group:</u>	The SHDF grants loans at favourable interest rates to natural persons that are both citizens and permanent residents of the Slovak Republic aged above 18. The support is targeted mainly at young people and takes the form of a subsidised loan up to 75% of the procurement price, not exceeding €52,300 per flat. It is charged at an interest rate between 1 and 2% with duration of up to 30 years. Applicants have to fulfil strictly defined conditions, one of which is an income not exceeding 3.5 times the living minimum.
<u>Target housing situation:</u>	SHDF is a major tool to finance several types of housing interventions governed by the state (e.g. building social housing, renovating the municipal stock, supporting the construction and thermal insulation of family houses). In the field of renovation of multi-family buildings the fund focused on the following action till 2014: 1) the reconstruction of systemic defects of buildings (referring to 12 systemic defects defined in 2006), 2) insulation of the building envelope. Inside the multi-family building stock, structural deficiencies can be eliminated in all types of buildings; buildings to be insulated must have been officially registered before 2002.
<u>Eligible energy efficiency measures:</u>	<p>In SHDF's first years of the operation only minor interventions were allowed to be executed, but currently much more complex interventions are required. For insulation projects, the whole envelope must be insulated including the windows, façade, roof, basement and balconies. For thermal insulation interventions there is a precondition to reach at least <b>35% energy saving</b> as a result of the intervention. The thermal insulation of the building in itself is appropriate to eliminate 9 out of the 12 systemic defects in the eligibility list. However, insulation cannot hide systemic failures: e.g. before installing the insulation, applicants have to follow strict instructions to eliminate cracks and improve degraded concrete. As well as insulation, SHDF also places importance on interventions to solve life-threatening deficiencies like exchange of wiring, gas and electricity. From January 2014 there are six main purposes defined for interventions:</p> <ol style="list-style-type: none"> <li>1) insulation of residential buildings</li> <li>2) elimination of systemic defects</li> <li>3) recovery of elevators</li> <li>4) reconstruction/change of common gas, electricity, sewerage, water, and heat systems</li> <li>5) creating barrier-free access</li> <li>6) other modernisation works.</li> </ol> <p>The vast majority of applicants apply for a combination of these interventions.</p>
<u>Targeted energy performance:</u>	<ul style="list-style-type: none"> <li>• Reduction of energy intensity of housing infrastructure through construction/technical interventions</li> <li>• Support of energy efficiency of thermal insulation of existing apartment houses</li> </ul>
<u>Process of application:</u>	The process of application is initiated by the homeowners represented either by the homeowners' association itself or by a professional maintenance company (mainly generated by the manager of the building). A two-thirds majority of all the

owners is required to support the participation (since 2010 it can be collected in a written form independently of the general assembly meeting). As the application procedure requires significant technical and administrative knowledge there is a need to involve technical experts from the first steps. The existence of a systemic failure must be demonstrated by an authorised civil engineer including the results of a diagnostic of the construction of the building with a description of the system fault, the extent and degree of damage, the proposed method to eliminate it and the approximate cost.

The applicant submits a written application through the district municipality, which verifies the request and sends the application to the fund. After a completed electronic application is submitted, the application is assigned a serial number. Within 90 days of receipt of the written copy of the application, the fund will assess the application and notify the applicant of the possibility of providing support. After this, the fund will send the applicant a draft contract within 30 days. All eligible projects will be financed up to the state financial limits on a first-come, first-served basis.

Preparing the application requires in general around six months, while the evaluation procedure also requires half a year. The completion date of the intervention may not be later than 24 months after the opening of the account.

## Details:

JESSICA/SFRB provides credit with no private capital leveraged (not taking into account the 25% own co-financing). The instrument has had several positive effects, reflecting the desire to use financial resources effectively in a repayable form. Support through loans is provided to citizens whose combined incomes do not exceed 3.5 times the subsistence minimum, thus targeting the neediest of a wide range of potential recipients.

One of the reasons behind the swift implementation of both the JESSICA and national instruments is a very good knowledge of the market. The SFRB has a very good overview of the market's needs and failures thanks to its close cooperation with (potential) beneficiaries, so has easily targeted the segments that are lacking sufficient support and access to financial Instruments.

The instruments succeeded even without an intensive promotion campaign. The SFRB has, thanks to its history, a dense network of potential beneficiaries and so was able to use informal links and communication to ensure the necessary investment flow.

Thanks to previous experiences, they were also able to make valuable recommendations when setting the conditions of the instrument so that they create favourable conditions for providing financial resources.

Minimising the administrative burden was another important aim, though the burden of national administration as well as the rules and regulations related to EU funds made this challenging. The fund was able to support potential beneficiaries



and flexibly help them with the administration of the application as well as with realising the investment. Although they do not provide any direct technical support along with the investment, the employees of the fund are able to help the beneficiaries within their competencies.

The fund also strictly defines the beneficiaries and projects for which the repayable support is determined so that there are no overlaps in support from grants and from loans.

Year	Number of contracts (buildings) for recovery	Amount of subsidy for recovery	Number of dwellings for recovery	Number of contracts (buildings) for insulation*	Amount of subsidy for insulation	Number of dwellings for insulation	Number of contracts (buildings) for insulation from EU funding	Amount of subsidy for insulation from EU funding	Number of dwellings
2001	9	23 760 000 SKK	506	9	22 104 000 SKK	614	-	-	-
2002	12	29 942 000 SKK	952	6	9 046 000 SKK	264	-	-	-
2003	81	185 173 000 SKK	1171	9	28 290 000 SKK	312	-	-	-
2004	40	322 958 000 SKK	1818	-	-	-	-	-	-
2005	48	250 000 000 SKK	1 724	-	-	-	-	-	-
2006	112	693 457 000 SKK	4 644	-	-	-	-	-	-
2007	202	1 003 717 000 SKK	8 231	-	-	-	-	-	-
2008	117	702 948 000 SKK	6 475	-	-	-	-	-	-
2009	127	26 299 497 EUR	7 210	311	70 242 011 EUR	14 775	-	-	-
2010	181	34 150 904 EUR	9 199	-	-	-	-	-	-
2011	233	53 697 102 EUR	13 075	87	16 681 333 EUR	3 745	-	-	-
2012	335	68 828 561 EUR	16 690	121	20 939 996 EUR	4 896	-	-	-
2013	406	82 146 773 EUR	18 993	137	24 021 199 EUR	3 879	69	10 964 186 EUR	2 740
2014	513	110 484 443 EUR	24 618	-	-	-	3	518 820 EUR	132

Source: "Výročná správa štátneho fondu rozvoja bývania za rok 2014, report on the performance of the State Housing Development Fund, May 2015

\* By the law family houses can also get support for recovery and insulation but practically insignificant amount of them got the subsidy (below 10)

\*\* Insulation and recovery are under a common title since 2014: 'subsidy for recovery'

According to the table above (and the SHDF annual report), approximately 150,000 residential dwellings have been renovated by means of the fund so far (including a small number of family houses) – although some of these buildings may have obtained the subsidy more if different parts of the building were renovated.

Currently, the demand for the SHDF loan exceeds the budgetary limits, even if these limits are expanding in general, so some applications must be rejected.



	<p>However, the amount devoted to renovation purposes changes constantly due to reallocations inside the fund.</p> <p>One of the most relevant changes of the scheme is the growing importance of quality control. In the first period of the scheme there was no emphasis on this factor; currently, however, only companies with a special licence and certified materials can implement the renovation projects. In general the technical requirements are becoming more and more strict (e.g. 5 cm of insulation was acceptable some years ago, while currently 15 cm is the standard). The building is technically audited before the project and there is an obligation to contract an independent supervisor to monitor the construction works (the fund also controls the quality when directly paying the contractor). Companies that implement the supervision must have a licence from the Slovak Technical Construction Office.</p>
<b>Best practices:</b>	<ul style="list-style-type: none"> <li>• Good knowledge of the market – targeting segments that are lacking sufficient support.</li> <li>• Network of potential beneficiaries – generation of necessary investment flow.</li> <li>• Favourable conditions under which resources are provided, that are attractive for the beneficiaries.</li> <li>• Use of non-refundable grants only for citizens with severe disabilities.</li> <li>• Targeting households whose joint income together does not exceed 3.5 times the subsistence minimum.</li> </ul>
<b>Limitations:</b>	<ul style="list-style-type: none"> <li>• The demand is much higher than SFRB can serve. In the period 2007-2012 the demand for support was 40% higher than SFRB could provide.</li> <li>• Despite interviews with key supply-side stakeholders, data on potential future financial resource available for investment in the area of urban and municipal development is very limited.</li> <li>• Municipalities struggle with high indebtedness, which indicates the high risk that commercial banks take on in these large projects.</li> </ul>
<b>Pathways for improvement:</b>	<p>There is considerable potential for institutions and instruments currently in place to play an active role in support of financial instruments during the next phases of operation. Slovakian commercial banks, with their strong capital reserves and integration in the market, could act as intermediaries, especially if supported with technical assistance and risk sharing.</p>


Latvia



<b>Name</b>	Energy efficiency programme
<b>Link:</b>	<a href="http://akaryon-epah.com/measure-policy/energy-efficiency-program">akaryon-epah.com/measure-policy/energy-efficiency-program</a>
<b>Duration:</b>	2007 – 2013, 2014 – 2020, 2021 - 2027
<b>Geographic scope:</b>	National



<u>Recipients:</u>	Apartment owners
<u>Managing body:</u>	ALTUM – a state-owned development financial institution, which offers state aid for various target groups with the help of financial tools (such as loans, credit guarantees, investing in venture capital funds, etc.). ALTUM develops and implements state aid programmes to compensate for market shortcomings that cannot be solved by private financial institutions.
<u>Other stakeholders involved:</u>	Project implementation: Structural and energy auditors, designers, construction companies, building supervision, product and component suppliers
<u>Volume of funding:</u>	n/a
<u>Financing method:</u>	Grants, loans.
<u>Funding method:</u>	Public funding – European, up to 50 %
<u>Own contribution:</u>	From 50%
<u>Target socioeconomic group:</u>	Target audience and beneficiaries are apartment owners in multi-apartment buildings.
<u>Target housing situation:</u>	The objective of the programme is to promote energy efficiency improvement, smart energy management and the use of renewable energy resources in apartment buildings.
<u>Eligible energy efficiency measures:</u>	Building insulation, heating system
<u>Targeted energy performance:</u>	Not lower than energy class C
<u>Process of application:</u>	Apartment owners apply for the receipt of financial aid through the mediation of an authorised person by submitting an application to ALTUM. Before attracting an EU subsidies and providing funding for project implementation, as well as starting renovation, it is important that all material decisions are made in general meetings or surveys involving at least two-thirds of apartment owners in a detached house (where dwellings belongs to different owners), or 100% of apartment owners in an undivided house (where all owners have joint ownership).
<u>Details:</u>	<p>There are two possibilities to finance buildings renovations through the ALTUM scheme:</p> <ol style="list-style-type: none"> <li>1) The building owner obtains a loan directly from ALTUM</li> <li>2) The building owner obtains a loan from a commercial bank, while ALTUM issues guarantees.</li> </ol> <p>In 2007-2013 planning period, energy efficiency improvement measures in multi-apartment buildings were co-financed by the ERDF within the national operational programme “Infrastructure and Services”. Over the 2014-2020 planning period,</p>

	they were implemented within the national operational programme “Growth and Employment”. This will be continued in the 2021-2027 planning period.
<b>Best case practices:</b>	<p>The apartment house at in Salaspils (built in 1971, renovated in 2019). The building has five floors, eight staircases and a basement. The total area is 7280.4 m<sup>2</sup>. More than €1.7 million has been invested in the renovation of the house, of which €722,000 are ALTUM grants or donations from European Union funds.</p> 
<b>Limitations:</b>	<p><u>Policy oriented, legal and structural barriers:</u></p> <ol style="list-style-type: none"> <li>1. Lack of coherent policy, lack of long-term vision and excessively changing construction laws.</li> <li>2. Insufficient technical support for municipalities and apartment owners for project preparation and implementation. An additional barrier is that project development, project documentation and administration costs are excluded from the eligible costs in case of financing via loans.</li> <li>3. Insufficient number of professionally trained specialists (building managers, energy auditors, designers, construction workers) and lack of qualified workforce hinders the implementation of good quality renovation projects.</li> <li>4. Low awareness of building and apartment owners regarding the advantages of renovation, which limits their interest in participation in retrofits of the residential sector.</li> </ol> <p><u>Financial barriers:</u></p> <ol style="list-style-type: none"> <li>1. Lack of financial resources on the side of local governments and the final beneficiaries (apartment owners). Limited possibility to take loans due to prior communal debts of the houses as centralised service users (mainly heat and water).</li> </ol>

	<ol style="list-style-type: none"> <li>Low availability of long-term financing options (up to 20 years) from private sector. Reluctance of commercial banks to provide credits for renovation, especially in multi-apartment buildings. This reluctance is related to the requirement of obtaining the agreement of at least 70% of the inhabitants before applying for a loan.</li> <li>High renovation costs related to the bad condition of multi-apartment buildings constructions and engineering systems.</li> </ol> <p><u>Market-orientated barriers:</u></p> <p>Current low energy prices result in low return on investment in energy efficiency and longer payback times.</p>
Pathways for improvement:	<p>Improving all the issues mentioned above.</p> <p>Involving renewable energy as an obligatory measure in the refurbishment projects.</p>

## Live Warmer

Name	Live warmer
Link:	<a href="http://akaryon-epah.com/measure-policy/live-warmer">akaryon-epah.com/measure-policy/live-warmer</a>
Duration:	2010 – ongoing
Geographic scope:	National
Recipients:	Homeowners
Managing body:	Ministry of Economics of the Republic of Latvia, Business/Industry
Other stakeholders involved:	More than 30 industry associations and business stakeholders
Volume of funding:	100% subsidy rate for all activities related to the execution of the project (structural and energy audit, design, construction works, supervision). Total budget of €1 billion.
Financing method:	It is an information campaign to promote energy efficiency.
Funding method:	State budget – European
Own contribution:	n/a
Target socioeconomic group:	Homeowners
Target housing situation:	Apartment buildings

<u>Eligible energy efficiency measures:</u>	n/a
<u>Targeted energy performance:</u>	n/a
<u>Process of application:</u>	n/a
<u>Details:</u>	<p>The campaign "Let's live warmer!" ("Dzīvo siltāk!") is a communication campaign developed to promote energy efficiency of buildings in Latvia.</p> <p>In spring 2009 the aid programme "Improvement of Heat Insulation of Multi - Apartment Residential Buildings" funded by the European Regional Development Fund was started. The aim of the programme was and still is the improvement of energy efficiency in multi-apartment residential buildings, improving the sustainability of the housing stock and efficient utilisation of energy resources. In order to inform people about the programme and encourage housing insulation in Latvia, the campaign "Let's live warmer!" has been developed.</p>
<u>Best case practices:</u>	<p>In 2013 won European Commission award for communication in Sustainable Energy Awards.</p> <p>In 2015 nominated for award in Energy Globe.</p>
<u>Limitations</u>	n/a
<u>Pathways for improvement</u>	n/a

## Greece



<u>Name</u>	Saving at Home II
<u>Link:</u>	<a href="http://exoikonomisi.yper.gr">exoikonomisi.yper.gr</a>
<u>Duration:</u>	2017-2020
<u>Geographic scope:</u>	National
<u>Recipients:</u>	Homeowners' associations and individual homeowners
<u>Managing body:</u>	Methodology: Ministry of Energy and Environment Financial operations: Hellenic Fund for Entrepreneurship and Development
<u>Other stakeholders involved:</u>	Energy inspectors – doing applications on behalf of homeowners

<u>Volume of funding:</u>	~€700 million
<u>Financing method:</u>	Grants up to €25,000 combined with interest-free loans
<u>Funding method:</u>	Public funding – ERDF and national funds from the National Strategic Reference Framework 2014 – 2020
<u>Own contribution:</u>	40-100% (own funds or interest-free loan)
<u>Target socioeconomic group:</u>	None; changes implemented to enable access for low-income households
<u>Target housing situation:</u>	Flats, blocks of flats and houses
<u>Eligible energy efficiency measures:</u>	<ol style="list-style-type: none"> <li>1. Replacement of windows</li> <li>2. Installation/upgrade of thermal insulation</li> <li>3. Upgrading of heating/cooling system</li> <li>4. District hot-water system using renewable energy sources</li> </ol>
<u>Targeted energy performance:</u>	Annual primary energy saving higher than 40% of the energy consumption (kWh/m <sup>2</sup> ) of the reference building for categories 1 and 2 (households with annual income of less than €25,000 or individuals with annual income of less than €15,000) and correspondingly, 70% for the rest.
<u>Process of application:</u>	<p>The interested party submits their application electronically to the information system of the official web portal of the programme at <a href="https://exoikonomisi.yopen.gr">exoikonomisi.yopen.gr</a>.</p> <p>If the interested party wishes to use a project consultant for the application process, they enter the details and authorise the consultant to fill in the necessary details for the application. Full details available at: <a href="https://exoikonomisi.yopen.gr/bemata-ylopoieses">exoikonomisi.yopen.gr/bemata-ylopoieses</a></p>
<u>Details:</u>	<p>Saving at Home II is the continuation of a programme under the same name, which ran until 2016. Although the programme subsidises the same types of intervention, it is designed to overcome the deficiencies of the first one, mainly related to heavy bureaucracy, limited access of low-income households, and low levels of energy savings. As before, the programme was co-funded by the ERDF and national funds from the National Strategic Reference Framework 2014 – 2020. However, in the second programme the loans were issued by the Hellenic Fund for Entrepreneurship and Development, and not by private banks.</p> <p>Furthermore, the maximum budget for renovation per house/apartment was increased to €25,000 and <b>the condition regarding the objective property value was removed to increase the pool of potential applicants</b>. In the second programme the income thresholds were split into seven categories as shown in the table below.<sup>7</sup></p>

<sup>7</sup> Metropolitan Research Institute Budapest and BPIE (2019) Energy Poverty Aspects of the REELIH project, pp. 36-37. Learn more at [getwarmhomes.org](https://getwarmhomes.org)

	Category	Personal annual income (PAI)	Family annual income (FAI)	Basic benefit	Subsidy	Additional Subsidy per dependent child	Maximum subsidy level
	1	PAI ≤ 10.000 €	FAI ≤ 20.000	60%		5%	70%
	2	10.000 € < PAI ≤ 15.000 €	20.000 € < FAI ≤ 25.000 €	50%		5%	70%
	3	15.000 € < PAI ≤ 20.000 €	25.000 € < FAI ≤ 30.000 €	40%		5%	70%
	4	20.000 € < PAI ≤ 25.000 €	30.000 € < FAI ≤ 35.000 €	35%		5%	70%
	5	25.000 € < PAI ≤ 30.000 €	35.000 € < FAI ≤ 40.000 €	30%		5%	50%
	6	30.000 € < PAI ≤ 35.000 €	40.000 € < FAI ≤ 45.000 €	25%		5%	50%
	7	35.000 € < PAI ≤ 40.000 €	45.000 € < FAI ≤ 50.000 €	0%		0%	0%

Best case practices	
Limitations:	<p>According to a recent topical publication,<sup>8</sup> the overall objective and strategies on the anticipated benefits of energy saving were received with scepticism and deemed unambitious. According to the Buildings Energy Efficiency Regulation, the outcome of an obligatory energy-efficiency upgrade by at least one category lags behind the outcome deriving from “near-zero energy buildings”.</p> <p>It is also claimed<sup>9</sup> that as buildings with low energy performance are applying, rather than reference buildings, the real energy savings are closer to 15-20%. A relevant share of the interventions happened in multi-family buildings, but this does not necessarily mean interventions in the building envelope. <b>The renovation works were practically done inside the apartments and not in the common spaces,</b> and contained change of windows, change of heaters, inner insulations and upgrading the hot water production system.</p>
Pathways for improvement:	<p>Corovessi et al.<sup>10</sup> confirm that given the fact that combating energy poverty is a clear objective in the national energy and climate plan, the drafting of a specialised programme for building renovation is necessary. In their opinion, the proposed programme should accommodate the needs of households that do not fall into one of the subsidy eligibility income brackets and are thus excluded from the current schemes. Special care should also be provided for large families and single-parent families – especially female single-parent families. In order to effectively safeguard citizens from energy poverty, a “deep” energy efficiency upgrade of residencies should be promoted, together with support for implementation of renewable energy technologies.</p>

<sup>8</sup> Corovessi, A. et al (2020) Energy Poverty in Greece. Policy developments and recommendations to tackle the phenomenon, p.23. Heinrich Böll Stiftung Greece, Office Thessaloniki. Available at [www.gr.boell.org](http://www.gr.boell.org).

<sup>9</sup> Metropolitan Research Institute Budapest and BPIE (2019) Energy Poverty Aspects of the REELIH project, p. 37.

<sup>10</sup> Corovessi, A. et al (2020), p.24.



## Romania



<b>Name</b>	Regional Operational Programme (ROP)
<b>Link:</b>	<a href="http://www.fonduri-ue.ro/por-2014">www.fonduri-ue.ro/por-2014</a>
<b>Duration:</b>	2014-2020
<b>Geographic scope:</b>	National
<b>Recipients:</b>	Local authorities (municipalities) of small and medium-sized towns and communities marginalised from urban environment
<b>Managing body:</b>	Ministry of Regional Development and Public Administration Regional Development Agencies (RDA)
<b>Other stakeholders involved:</b>	European Regional Development Fund (ERDF) Council of Europe Development Bank (CEB) Ministry of European Funds Ministry of Economy and Finance Ministry of Internal Affairs
<b>Volume of funding:</b>	€8.38 billion
<b>Financing method:</b>	Regional allocations (envelopes of resources) based on clear criteria, are an important mechanism for managed competition, ensuring that regions with the greatest need receive adequate resources. The regional allocations approach has been widely used in the EU, and Romania is also adopting this approach towards resource allocation. These regional allocations should be publicly available. The envelopes decentralise resources to the regions but simultaneously link national priorities with local bottom-up needs identification through earmarking of shares of regional allocations.
<b>Funding method:</b>	€8.38 billion of which €6.86 billion (including the reserve of performance) is from the EU, through the ERDF; national contribution (state budget, local budgets) is about €1.53 billion.
<b>Own contribution:</b>	Differs depending on the programme
<b>Target socioeconomic group:</b>	The target groups with the highest risk of poverty and social exclusion belong to the Roma ethnic group, who make up 46% of the population in block ghetto areas to 85% in slum areas with makeshift shelters. In addition to the Roma population, other vulnerable target groups are women (the poverty risk rate in 2011 was 16.8%), children (poverty risk rate was 26.0% in 2010), young people (in Romania, in 2010, one in five young people was at risk of poverty, a continuing phenomenon expansion since 2001), people with disabilities and the elderly.
<b>Target housing situation:</b>	The ROP 2014-2020 aims to increase growth and economic competitiveness and improve the living conditions of local communities at regional level by supporting the development of the business environment, infrastructure and services, ensuring the sustainable development of the regions,

	efficiently managing resources, capitalising on innovation potential and assimilating technological progress.
<u>Eligible energy efficiency measures:</u>	<ul style="list-style-type: none"> <li>Improving the thermal insulation of the building envelope (exterior walls, windows, carpentry, upper floor, basement floor), trusses and roofing, including building reinforcement measures</li> <li>Rehabilitation and modernisation of facilities for the preparation and transport of heating, domestic hot water, and ventilation systems, including passive cooling systems, as well as the purchase and installation of related equipment and connection to central heating, as appropriate</li> <li>The use of renewable energy sources to ensure the necessary thermal energy for heating and preparation of hot water for consumption</li> <li>Implementation of energy management systems aimed at improving energy efficiency and monitoring energy consumption (e.g. acquisition and installation of intelligent systems for the promotion and management of electricity)</li> <li>Replacement of fluorescent and incandescent lighting fixtures with lighting fixtures with high energy efficiency and long life</li> <li>Any other activities that lead to the achievement of the project objectives (replacement of elevators and electrical circuits, stairs, basement, dismantling of installed installations and equipment, repair works on facades, etc.)</li> <li>Implementation of energy efficiency strategies (e.g., CO2 reduction strategies) that have projects implemented through the ROP 2014-2020</li> <li>Acquisition/installation of remote management systems for public lighting</li> <li>Creation/extension/reunification of the public lighting system in urban settlements</li> <li>Use of renewable energy sources (e.g. photovoltaic panels, etc.)</li> </ul>
<u>Targeted energy performance:</u>	<p>Expected impacts:</p> <ul style="list-style-type: none"> <li>Reduction of energy consumption by 37% in public buildings, 51% in residential buildings, and 33% for public lighting</li> <li>An increased share of innovative SMEs collaborating with others (+ 3.7%)</li> <li>Support to more than 5,000 SMEs leading to a 46% increase in labour productivity in less developed regions</li> <li>10% increase in the survival rate of SMEs</li> <li>Improving urban public transport attracting 140 million additional passengers per year in less developed regions</li> <li>The rehabilitation and modernisation of more than 2,000 km of roads, improving regional connectivity to the Trans-European Transport Network</li> <li>Creating 224,000 m<sup>2</sup> of additional green spaces in cities</li> <li>Renovating 45 additional cultural heritage sites</li> <li>500,000 people benefitting from better community and primary health care services in less developed regions while decreasing avoidable emergency admissions in hospitals</li> <li>Increasing the enrolment in crèches, pre-primary education, primary and secondary and vocational education and training</li> </ul>

	<ul style="list-style-type: none"><li>Increasing the share of the population aged 30-34 with tertiary level education from 20.4% to 28.2%</li><li>Increasing the number of administrative units with all properties included in the land register from 0.24% to 28%</li></ul>																																	
Process of application:	Calls for projects under the ROP 2014 -2020 are launched online at <a href="http://www.fonduri-ue.ro">www.fonduri-ue.ro</a> by using MySMIS; the application is made available to potential applicants by the Ministry of European Funds.																																	
Details:	<p>The mission statement identifies several priority development needs, some of which are similar with the previous period (supporting SMEs as a mechanism to generate employment, infrastructure in urban areas, developing infrastructure for tourism, more investments in social infrastructure in order to promote social inclusion of disadvantaged groups and prevent high levels of unemployment and poverty) and some which were introduced within the 2014 - 2020 programming period (generating innovation in companies and cancelling the disconnect between research and business, addressing unsustainable energy usage in private and public spaces, improving property registration in the Land Registry and unifying the two existing systems of registration). These needs are planned to be addressed by the ROP, which is organised in 11 priority axes (compared with 6 in the previous programming period) to be financed by the ERDF, which allocated €6.3 billion compared to €3.7 billion in the previous programming period.</p> <table><tr><th>Priority axes</th><th>ERDF allocation (%)</th><th>ERDF allocation (€)</th></tr><tr><td>1. Promoting technology transfer</td><td>2.6</td><td>165</td></tr><tr><td>2. Improving the competitiveness of SMEs</td><td>11.1</td><td>700</td></tr><tr><td>3. Supporting the transition to a low-carbon economy</td><td>4.8</td><td>300</td></tr><tr><td>4. Supporting sustainable urban development</td><td>42.1</td><td>2654</td></tr><tr><td>5. Improving the urban environment and conservation, protection and sustainable use of cultural heritage</td><td>4.8</td><td>300</td></tr><tr><td>6. Improving road infrastructure of regional importance</td><td>14.3</td><td>900</td></tr><tr><td>7. The diversification of local economies through sustainable tourism development</td><td>1.5</td><td>95</td></tr><tr><td>8. Health and social infrastructure development</td><td>6.4</td><td>400</td></tr><tr><td>9. Supporting economic and social regeneration of deprived urban communities</td><td>1.4</td><td>90</td></tr><tr><td>10. Improving educational infrastructure</td><td>5.4</td><td>340</td></tr></table>	Priority axes	ERDF allocation (%)	ERDF allocation (€)	1. Promoting technology transfer	2.6	165	2. Improving the competitiveness of SMEs	11.1	700	3. Supporting the transition to a low-carbon economy	4.8	300	4. Supporting sustainable urban development	42.1	2654	5. Improving the urban environment and conservation, protection and sustainable use of cultural heritage	4.8	300	6. Improving road infrastructure of regional importance	14.3	900	7. The diversification of local economies through sustainable tourism development	1.5	95	8. Health and social infrastructure development	6.4	400	9. Supporting economic and social regeneration of deprived urban communities	1.4	90	10. Improving educational infrastructure	5.4	340
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	11. Geographical expansion of the system of cadastre and property registration in the Land Registry	4.0	250
	12. Technical assistance	1.7	104
	<b>Total</b>	<b>100</b>	<b>3298</b>
Best practices:	n/a		
Limitations:	The challenges include operationalising and integrating regional development, particularly at regional and local levels, within the context of EU structural funds; developing multi-level planning and resource allocation mechanisms that effectively channel net transfers from the EU for efficient absorption at local levels (regions, counties, cities and communes); building on the successful experiences of projects supported by the World Bank and other donors in using bottom-up planning and implementation processes to develop high-quality local projects; and achieving synergies with other operational programmes, especially those dealing with rural development.		
Pathways for improvement:	Romania could derive significant additional benefits by drawing more heavily on the EU's hard-earned lessons in programming and implementation. While Romania has gained substantially from a wide array of technical assistance measures to help align its systems with EC requirements, considerably less emphasis has been placed on incorporating the strategic implementation lessons of Member States. A stronger working relationship between the managing authority and the regional development agencies is important to clarify and build a consistent technical approach to project approvals and technical support among the regional development agencies and the ministry.		

## Estonia



Name	KredEx <sup>11</sup>
Link:	<a href="http://www.kredex.ee/en">www.kredex.ee/en</a>
Duration:	2009 – ongoing
Geographic scope:	National
Recipients:	Housing associations (apartment associations and building associations) and communities of apartment owners of buildings constructed before 1993; local authorities (owners of social housing)
Managing body:	Estonian Ministry of Economic Affairs and Communications KredEx Foundation KredEx Revolving Fund “KredEx Fund”

<sup>11</sup> Main sources: (1) [www.cityinvest.eu/content/kredex](http://www.cityinvest.eu/content/kredex); (2) [www.kredex.ee/en](http://www.kredex.ee/en)

<u>Other stakeholders involved:</u>	European Regional Development Fund (ERDF) Council of Europe Development Bank (CEB) Local commercial financial institutions: SwedBank and SEB Apartment/housing associations
<u>Volume of funding:</u>	€72 million
<u>Financing method:</u>	KredEx Fund provides renovation loans at fixed 10-year term interest rates of between 3.5% and 4.5% (the latter interest rate was applied at the beginning), the average being approximately 4.0%, for up to 20 years. The KredEx Fund only applies 0.5% to 0.75% of the loan amount as a contract fee, which is also below commercial market terms. Grants are available through KredEx for those housing associations who wish to undertake deep retrofit or reconstruction (see below).
<u>Funding method:</u>	Projects are being funded by the beneficiaries' own funds (at least 15%), by their financial institutions, by KredEx Fund through the intermediary banks and by different grants programmes. The revolving fund's capital has been provided by the ERDF, the government of Estonia, the CEB and the KredEx Foundation.
<u>Own contribution:</u>	A minimum own contribution of 15% is required from the beneficiaries (this can be own funds, grants or any other loan) and the maximum amount has been capped at €1.35 million per building. There is no collateral required and the loans are mostly reimbursed with the achieved energy savings. The building has to be insured during the whole term of the loan.
<u>Target socioeconomic group:</u>	No specific group targeted. Nevertheless, the fund has helped almost 103,000 families to build or renovate their home and improved living conditions of more than 12,000 children living in families of modest means.
<u>Target housing situation:</u>	KredEx Fund supports only renovation and reconstruction projects of multi-apartment buildings where at least three apartment owners want to make use of the loan possibility, preferably represented by a housing association.
<u>Eligible energy efficiency measures</u>	<ul style="list-style-type: none"> <li>• For the Renovation grant 2019:</li> <li>• Reconstruction and insulation of the facade, and related works</li> <li>• Reconstruction of open and closed balconies, installation of glass or replacement of balconies, and related works</li> <li>• Reconstruction and insulation of the roof and the roofing deck, and related works</li> <li>• Replacement or renovation of windows, exterior and fire doors, and related works</li> <li>• Reconstruction and insulation of the basement, and related works</li> <li>• Replacement, reconstruction and balancing of the heating system, preparation of the heating system balancing protocol, and related works</li> <li>• Installation, replacement or reconstruction of the water supply and sewerage system, and related works</li> <li>• Construction of a heat-recovery ventilation system or reconstruction of the ventilation system, preparation of the ventilation system measurement protocol, and related works</li> </ul>

	<ul style="list-style-type: none"> <li>Acquisition and installation of equipment necessary for using local renewable energy</li> <li>Partial or complete reconstruction of the control system and operating mechanism of the lift, or replacement of the lift, and related works</li> <li>Replacement or reconstruction of the building's electrical system in common areas, and related works</li> <li>Installation of the insulation of the windows of common areas and apartments and restoration of the interior finish after the construction of the heating and ventilation systems</li> <li>Installation of ramps and handrails on staircases necessary for entering and exiting the building, construction of the lift, and related works</li> <li>Preparation of the building design documentation and carrying out the site investigation and building audit underlying the building design documentation</li> <li>Use of the services of the technical consultant for the renovation of the apartment building</li> <li>Exercise of owner supervision.</li> </ul>
<u>Targeted energy performance:</u>	<p>30-50% savings, depending on the grant scheme</p> <p>For the regular loans: a minimum commitment of 20% energy savings is required in buildings up to 2000 m<sup>2</sup>, while in larger buildings this increases to 30%.</p>
<u>Process of application:</u>	<ol style="list-style-type: none"> <li>1. Apartment building associations wishing to undertake retrofit need first to contract an energy audit. Up to 50% of the cost of the energy audit can be financed by grants through KredEx.</li> <li>2. Based on the energy audit the beneficiary needs to prepare the project design or building design documents (energy audit, energy consumption reports, selected energy efficiency measures, feasibility, required budget, building permit, etc.). Up to 50% of the building design costs can be financed by grants through KredEx.</li> <li>3. The beneficiary requests at least three formal price quotes for the works to be carried out.</li> <li>4. Submission of the project and related documents to the intermediary bank and application for loan and/or grants.</li> <li>5. Project appraisal and creditworthiness assessment by the intermediary banks.</li> <li>6. Formal decision on approval for financing by intermediary banks.</li> <li>7. Forwarding of grant application by intermediaries to KredEx.</li> <li>8. Formal decision on approval of grants by KredEx</li> <li>9. Signatory of loan agreement with intermediaries and grant agreement with KredEx.</li> <li>10. Service suppliers (works contractor, project management, supervisors, etc.) are chosen and contracted by the beneficiary.</li> <li>11. During the works phase the invoices related to the works and the related services are financed by the bank (funds made available to the beneficiary or paid directly to the service providers).</li> </ol>



	12. At the end of the works the construction grants (15%- 35%) can be paid out to the beneficiary.
<u>Details:</u>	<p>Grants are available through KredEx for those housing associations who wish to undertake deep retrofit or reconstruction.</p> <p>a. Beneficiaries can obtain grants of 15%, 25% or 35% depending on the level of energy savings achieved:</p> <ul style="list-style-type: none"> <li>For 15% grants the beneficiaries must meet the terms for the renovation loan, achieve energy savings of 20% for buildings up to 2000m<sup>2</sup> or 30% for buildings over 2000m<sup>2</sup>, obtain energy label E and limit energy consumption to less than 250 kWh/m<sup>2</sup></li> <li>For 25% grants the beneficiaries need to include roof, facade, windows (U-value 1.1), heating system, achieve energy saving of at least 40%, obtain energy label D and limit energy consumption to less than 200 kWh/m<sup>2</sup></li> <li>For 35% grants the beneficiaries need to include roof, facade, windows (U-value 1.1), heating system, heat-recovery ventilation system, achieve energy saving of at least 50%, obtain energy label C and limit energy consumption to less than 150 kWh/m<sup>2</sup>.</li> </ul> <p>b. Beneficiaries can obtain grants for up to 50% of the expenses for energy audit and building expert evaluations and project design documents. The purpose of these grants is to motivate representatives of apartment buildings to consult with an expert before planning and performing any reconstruction work, and to have the works carried out in accordance with the expert's suggestions and the Estonian Building Act.</p> <p>c. KredEx also provides apartment building loan guarantees covering up to 75% of the loan amount with no collateral requirement. These guarantees are intended for higher risk rated apartment buildings (number of debtors, rural area, low market value, payment risk) and when reconstruction cost per m<sup>2</sup> is higher due to complex reconstruction. Guarantee fee charges of 1.2% - 1.7% apply.</p> <p>Since 2019, a new renovation grant is managed by KredEx:</p> <ul style="list-style-type: none"> <li>The grant amounts to 30% of the total cost of the renovation works in Tallinn and Tartu, and to 40% of the total cost of the renovation works in rural municipalities neighbouring Tallinn and Tartu, where the market value of the property in the year preceding the submission of the application was higher than €500/m<sup>2</sup> according to the transaction database of the Land Board, as well as in Elva, Haapsalu, Keila, Kohila, Kuressaare, Maardu, Otepää, Paikuse, Pärnu, Rakvere, Rapla, Sauga, Uuemõisa and Viljandi. In the rest of Estonia, the grant amounts to 50% of the total cost of the renovation works.</li> <li>In regions other than Tallinn and Tartu, it is possible to apply for a grant that is 10% lower than the official percentage if all the required conditions are not met, for example, if no heat-recovery ventilation system will be built or if the linear thermal bridge requirement will not be met.</li> </ul>
<u>Best practice cases:</u>	Series of promotional videos available at <a href="http://www.kredex.ee/en/videopank">www.kredex.ee/en/videopank</a>
<u>Limitations:</u>	As of today the whole funding (€72 million) has been exhausted. Notwithstanding its depletion the KredEx Fund is still taking applications in the hope that it can

	secure new funding. The fund has not really yet begun its revolving potential as it is still reimbursing the loans obtained from some of its funders (CEB and the Estonian government).
Pathways for improvement:	Despite the fact that the KredEx Fund has not been able yet to leverage on its revolving capacity it has proven to be a successful fund supporting the Estonian government's objective of improving the energy efficiency and indoor climate in targeted buildings. The loan scheme has been successful in promoting the take-up of innovative solutions to improve energy efficiency in buildings, often by as much as 40%. Through its focused and intense promotional activities it has been instrumental in increasing energy efficiency awareness in Estonia.

## Poland



Name	STOP SMOG
Link:	<a href="http://czystepowietrze.gov.pl/stop-smog">czystepowietrze.gov.pl/stop-smog</a>
Duration:	2018 – ongoing
Geographic scope:	Local (city or municipality)
Recipients:	Owners or co-owners of single-family residential buildings, municipalities, inter-communal and <i>powiat</i> (district) unions
Managing body:	Ministry of Climate and the Environment National Fund for Environmental Protection and Water Management; Co-financed by Thermal Modernisation and Refurbishment Fund of the National Economy Bank
Other stakeholders involved:	Energy auditing bodies
Volume of funding:	~€500 million
Financing method:	Subsidy from the funds of the Thermomodernization and Renovation Fund, up to 70% of the cost of implementing the agreement. - the average cost of implementing a low-emission project in one building, and in the case of a building with two units – in one unit, may not exceed PLN 53,000 (~€11,800)
Own contribution:	30% own contribution by the commune/municipality applying; no contribution from end beneficiaries
Target socioeconomic group:	Energy-poor people
Target housing situation:	Single-family residential buildings

<u>Eligible energy efficiency measures:</u>	<ul style="list-style-type: none"> <li>• Replacement or elimination of high-emission heat sources with low-emission ones</li> <li>• Thermal modernisation of single-family residential buildings</li> <li>• Connection to the heating or gas network</li> <li>• Providing buildings with access to energy from renewable energy installations</li> <li>• Reducing the demand of single-family residential buildings for energy supplied for heating and domestic water heating.</li> </ul>
<u>Targeted energy performance:</u>	30% heat demand reduction
<u>Process of application</u>	New procedure and application requirements valid since 31.03.2021 are available in Polish at <a href="https://czystepowietrze.gov.pl/wp-content/uploads/2021/03/Stop-Smog-ogloszenie-o-naborze-od-31-marca-2021-roku.pdf">https://czystepowietrze.gov.pl/wp-content/uploads/2021/03/Stop-Smog-ogloszenie-o-naborze-od-31-marca-2021-roku.pdf</a>
<u>Details:</u>	<p>The programme supports the replacement or liquidation of heat sources and thermal modernisation in single-family residential buildings of energy-poor people. It is implemented by communes, but a party to the agreement on behalf of communes may also be a poviát, an inter-commune union or a metropolitan union in the Śląskie Voivodeship.</p> <p>Project implementation period:</p> <ul style="list-style-type: none"> <li>- Up to three years from the date of concluding the agreement, in the case of implementation of low-emission projects covering no more than 2% of the total number of single-family residential buildings in the commune</li> <li>- Up to four years from the date of concluding the agreement, in the case of implementation of low-emission projects covering more than 2% of the total number of single-family residential buildings in the commune</li> </ul>
<u>Best practice cases:</u>	n/a
<u>Limitations</u>	<p>Based on a publication<sup>12</sup> on energy efficiency best practices, the general limitations are related to the lack of comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling completed at national level.</p> <ul style="list-style-type: none"> <li>• Innovative financing mechanisms are not used.</li> <li>• Insufficient in-house expertise about financial tools.</li> <li>• Insufficient own funds requirements.</li> <li>• Lack of knowledge regarding existing financial tools.</li> </ul>
<u>Pathways for improvement</u>	<p>Already steps are being made towards simplifying the application procedure and as of January 2021, notable changes have been implemented:<sup>13</sup></p> <ul style="list-style-type: none"> <li>• Enabling inter-communal and poviát unions to apply for the programme as a coordinator of several communes</li> </ul>

<sup>12</sup> Thermal Modernisation and Refurbishment Fund, Poland (2018). Available here: [PUBLEnEF - Energy Efficiency Policy Support](#)

<sup>13</sup> Agreement on cooperation regarding the "Stop Smog" program, 21 Jan 2021, available here: <https://czystepowietrze.gov.pl/porozumienie-o-wspolpracy-dot-programu-stop-smog>



- Extension of the agreement implementation period from three to four years
- Allowing the possibility of also implementing low-emission projects in buildings that are part of the commune's housing stock
- Equipping communes with tools enabling the verification of data of applicants for participation in the programme
- Improving certain conditions for the participation of residents in the programme
- Extension of the catalogue of eligible costs
- Abolishing the obligation for municipal governments to draw up low-emission programmes
- Reducing the minimum number of single-family buildings to apply for the programme (from 2% to 1% or 20 buildings)
- Reducing the required heat demand reduction from 50% to 30%
- Reducing the post-agreement period from 10 to 5 years for the activities and obligations of the municipality and the beneficiary.

## 5. Conclusion and next steps

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This report presents a serious number and variety of support schemes, which are indicative of an already long-standing tradition of building renovation and established social policies regarding the most vulnerable parts of society. Certain trends and tendencies demonstrate the continuing dependence of the renovation policies on the local traditions and political landscape, but also outline potential for further improvements.

It must be recognised that there are components of the renovation programmes that take into account the needs of vulnerable households. However, as in many other countries in Europe, the financial instruments are based on the existing definitions of economic poverty or “vulnerability” (e.g. eligibility for fuel subsidies), and do not take into account the “energy” component of the “energy poverty” concept. This is one of the founding hypotheses of the ComAct project, and represents an obvious entry point for much-needed improvements of the existing practices. In addition, the need to provide technical assistance and quality assurance over the implementation of renovation projects is also a particularly important component – and often lacking. Improving programmes in this direction would guarantee that the planned energy savings and the desired impact on energy poverty are achieved; it would bring down transaction costs and increase the trust of the final beneficiaries.

There is a substantial difference in subsidy components in the various support programmes, varying from 100% grant rates to schemes only applying “soft” loans (e.g., supported by state guarantees, offering subsidised interest, or other preferential conditions). The balance seems difficult to find, as both approaches display significant deficiencies, either limiting the scope of the programmes in the first case or blocking participation of low-income households in the second.

In this regard, it is evident that innovative funding models are rarely used in the target region. In several of the categories of the applied methodology (e.g. forfeiting, chauffage contracts, on-bill and on-tax recovery, crowdfunding, etc.), there is not a single example identified by the responsible experts in the ComAct pilot countries. Again, this is a promising field for improvement, especially in connection to the increasing possibilities to stimulate synergies with the developing market of energy cooperatives.

Last but not least, it has to be acknowledged that the building renovation programmes are unfortunately still dependent on the policy and economic landscape, as even programmes evaluated as highly successful by local experts are discontinued at certain shifts of power or policy priorities at national level. With lack of continuity being widely recognised as a constant trait of the political climate in the region, such abrupt changes in the policy direction may have a highly negative impact both on the social perception of the benefits of energy efficiency, and on the interest of investors to develop capacities.

The next phases of the ComAct project will build on the shared knowledge regarding the existing financing mechanisms gained in the process of developing of the current report. We expect this to facilitate the smooth development of new or upgrading of existing financial schemes in the pilot countries, so that new opportunities can be utilised by building on existing practices. In addition, the outputs of this report will be applicable throughout the stakeholder engagement process: because they

present examples from countries with common political and economic backgrounds, they have strong replication potential.





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