



POWERPOOR

Empowering Energy Poor Citizens through Joint Energy Initiatives

POWERPOOR - Bulgaria's policy roadmap to alleviate energy poverty (Part of D5.9)

Working on the ground with energy-poor households and policymakers on mitigating energy poverty levels.

July 2023

www.powerpoor.eu

Introduction

In the POWERPOOR project, partners are actively assessing causes of energy poverty and suggest short-term and collective energy action solutions to mitigate this problem. A highly diverse network of Energy Supporters and Mentors has been trained and is being engaged to further support energy poor households to implement solutions. The project also sets up Local Energy Poverty Mitigation Offices in engaged municipalities. POWERPOOR strives to trigger high-impact change, not only on the local and regional level, but also on the national and European level. Such a multi-level governance approach will result in long-lasting impact and coordination between local needs and national (e.g. National Energy and Climate Plans) and supra-national enabling frameworks.

The aim of the national roadmaps is then to build on current project activities and to enable the application of the POWERPOOR approach to promote integrated energy poverty mitigation policies across all regions and cities within the pilot countries. This roadmap template is a synthesis exercise based on several outputs of the Work Packages and is to be used by project partners and Energy Supporters & Mentors during the last year of the project and beyond its lifetime (also possibly to be incorporated into future Horizon projects).

Next to the project national partners, stakeholders out of the network of Energy Supporters and Mentors, especially those at the National Liaison Groups, should be invited, to take ownership of the national roadmaps and take the process forward. This work will result in lessons-learned, which, in turn, generate policy recommendations on how the national regulatory / incentive framework should be adapted to mitigate energy poverty in the first place.

The key content defined in the national roadmaps will input the POWERPOOR exploitation plan as well as the POWERPOOR EU Policy Roadmap.

In Bulgaria the POWERPOOR project started in the capital city Sofia, where in 2021 the first trainings of POWERPOOR Energy Mentors and Supporters took place and the first Energy Poverty Mitigation office was established. Since then the POWERPOOR approach has reached several municipalities in the country, and has engaged Energy Mentors and Supporters to assist energy poor households in implementing energy efficiency solutions. However, if POWERPOOR is to trigger a high-impact change nationwide, a comprehensive national exploitation plan is needed. The POWERPOOR National Roadmap of Bulgaria is developed precisely with this end in mind, to promote integrated energy poverty mitigation policies across all regions and cities within Bulgaria, building on current project activities, and extending the application of the POWERPOOR approach beyond the project's lifetime.

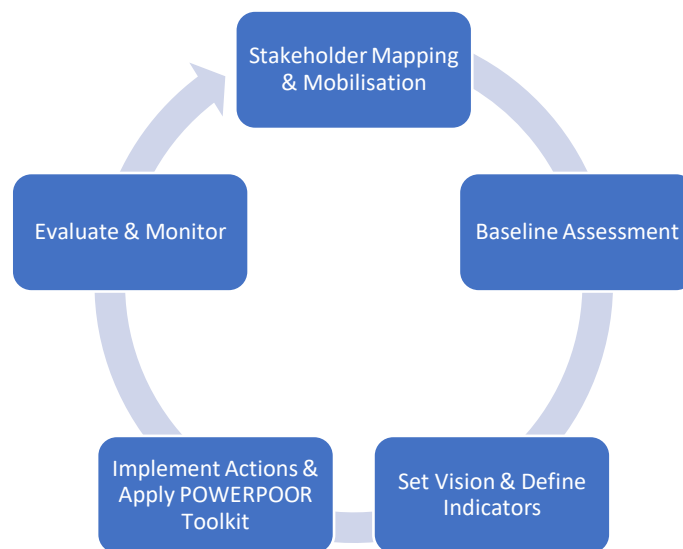
The First National Stakeholders Liaison Group meeting in Bulgaria took place online in 2021, when the project was presented to the potential stakeholders and they were invited to take part in the project's activities. The Second National Stakeholders Liaison Group meeting in Bulgaria took place in October 2022, and was also held online. The number of participants was higher, since during the POWERPOOR trainings and the project's dissemination activities new stakeholders were identified and were invited to participate. Before the Second National Stakeholders Liaison Group meeting the idea about developing a National Roadmap was presented to the stakeholders, and an overview of the methodology for co-creating it was explained. During the meeting the road-mapping exercises were carried out and a first draft of the POWERPOOR Roadmap emerged. Subsequently, in a series of consultations with the stakeholders, a more mature version of the National POWERPOOR Roadmap was developed.

What is the methodology for the national roadmaps?

The development and adoption of the national roadmap is subdivided into two phases, which each encompasses specific steps on an integrated management cycle (adapted from ICLEI Green Climate Cities Programme). The cycle has been chosen as a basis for the roadmap since it promotes a holistic approach to policy making.

Phase 1 takes place until the end of the POWERPOOR project and includes steps which shall be carried out by partners and Energy Supporters and Mentors until then. Phase 2 takes place within one year after the project, or on any other timeline decided by the partners and stakeholders. Once the cycle has been completed a first time, the process can be repeated (and could potentially serve as a basis for future projects).

Figure 1 Roadmap Methodology



Adapted from ICLEI Green Climate Cities Handbook 2016

National Roadmap Development

Phase 1

The following three steps correspond largely to the activities carried out within the POWERPOOR project and rely strongly on the findings of Deliverable 4.2 “Baseline Assessment Report”. They will form the basis for the national roadmaps and for the subsequent steps of Phase 2.

Step 1: Stakeholder Mapping, Commitment & Mobilization

As part of D4.1, project partners have carried out an initial assessment of stakeholders who are part of the National Liaison Groups, have created an overview of the expectations the different stakeholders have towards the project as well as their influence and level of expertise. As part of the road-mapping process, it becomes important to identify the relative importance of particular stakeholder groups vis-a-vis energy poverty mitigation and to identify how flexible stakeholders are to adapt their everyday (business) practices and what kind of networks exist between them. The stakeholder universe methodology, as presented in Module 4 lends itself well for this.

Below, the Bulgarian POWERPOOR stakeholders' universe is depicted. The focal point (the subject) of the system is alleviation of energy poverty, the horizontal axis (x) represents the interest of a given stakeholder in the subject, whereas the vertical axis (y) represents the adaptability of a given stakeholder towards energy poverty alleviation. Please, note: the size of the node is irrelevant.

Following the analysis of the target groups/stakeholders, the following conclusions have been made:

Ministry of Energy has a key role in alleviating energy poverty. However, their interest in the subject is not very high, and their adaptability is very low, since before implementing any significant changes, the Ministry is obliged to wait for the appropriate legislation to be adapted.

Sustainable energy development agency (SEDA) is a legal entity on state budget support and has the status of an executive agency within the Ministry of Energy. Their interest in the alleviation of energy poverty is not very high, while their adaptability is comparatively low, since they are under the control of the government.

Ministry of Regional Development and Public Works is responsible for the Programmes for energy renovation of buildings, which are directly related to the alleviation of energy poverty, thus, it has a significant interest in the subject; they also demonstrate certain degree of adaptability, since the Energy Renovation Programmes are designed based on the latest requirements for energy efficiency in buildings.

Ministry of Labour and Social Policy has significant interest in the subject, since any issue concerning poverty and social exclusion falls within their domain. However, their adaptability is very low, since before implementing any significant changes, the Ministry is obliged to wait for the appropriate legislation to be adapted.

Social services in Bulgaria are coordinated by the **Agency for Social assistance** (a legal entity with the status of an executive agency within the Ministry of Labour and Social Policy), which is considered to have high interest in the alleviation of energy poverty and to be highly adaptable.

Social care NGOs are considered to have a significant interest in the alleviation of energy poverty, as well as high adaptability to the demands of social groups in risk of poverty and exclusion.

Municipalities in Bulgaria have relatively high interest and adaptability, since energy poverty is presented in various public documents, and they have the obligation to follow the EU directives, strategies, and guidelines concerning the alleviation of energy poverty.

The **Legislation** in Bulgaria has shown so far only low interest and adaptability. However, energy poverty as a problem within the EU is presented in a number of public

documents and the Bulgarian government, following the EU directives, strategies, and guidelines, has the obligation to adopt, adapt and integrate the appropriate legislation into the national framework.

Bulgarian Academy of Sciences is considered to have high interest and adaptability, since in the past few years they have proven to be a key figure in formulating the national definition of energy poverty, and have been leading the research on the legislative needs of the country regarding energy poverty alleviation.

Universities and other research institutions are considered to have high interest in the phenomenon, which they treat as a research field and as a study subject. On the other hand, they have only moderate adaptability due to the slow procedures for adapting their curricula to meet new public interests.

Banks and Financial institutions have negligible interest in the alleviation of energy poverty, but they can demonstrate high adaptability when they are motivated to develop new financial schemes to meet market demands.

Energy companies have little interest and adaptability in the alleviation of energy poverty. However, their contribution to the process can be of significant importance. Thus, through incentives and rewards they should be encouraged to play a role in the alleviation of energy poverty.

Grid companies, just as **energy companies**, have little interest and adaptability in the alleviation of energy poverty. However, their contribution to the process can be of significant importance. Thus, through incentives and rewards they should be encouraged to play a role in the alleviation of energy poverty.

RES technology companies are considered to have little interest in the alleviation of energy poverty, while their potential impact on the phenomenon can be of great value, since their technological advantages make them highly adaptable to the new social realities.

Green energy NGOs will not necessarily have any interest in the alleviation of energy poverty but their potential role in tackling energy poverty is considerable. Their agility can vary depending on their internal regulations.

In Bulgaria **energy communities** are still in their infancy. Potentially, they are related to the energy poverty phenomenon and can be instrumental in energy poverty alleviation. However, their adaptability will depend on many different factors, thus they are agile only to some extent.

Building companies have very low interest in the mitigation of energy poverty. However, potentially they can display a relatively high level of adaptability, and their

policies, their decisions can have a lasting impact on energy consumption, thus they should be involved in the energy poverty alleviation activities.

Home owners (who are not energy poor themselves) are not highly interested in energy poverty alleviation but they can be very adaptable, since they can increase the energy efficiency of their buildings, thus reduce the energy expenditure.

Landlords, similar to **home owners**, are not highly interested in energy poverty alleviation but they can be very adaptable, since they can increase the energy efficiency of their buildings, thus reduce the energy expenditure.

There are many links between different stakeholders' groups representing relationships between the stakeholders in terms of flow of resources, management, consultancy, exchange of information, etc. The **Ministry of Energy** is connected to its **Agency (SEDA), municipalities, energy cooperatives**, providing them with management and consultation, the Ministry influences the national **legislation** regarding energy issues, which in turn provides the activities of the Ministry with regulatory framework. The Ministry is also connected to the **Bulgarian Academy of Sciences, the Universities**, and various **research institutions**, since information about the latest advancement in scientific research and technology is crucial for the decision-making process of the **Ministry**.

The **Ministry of Regional Development and Public Works** is responsible for the conduction of a reform for the country's development, the spatial planning of the territory, the setting up of the main networks and facilities for technical infrastructure. In terms of alleviating energy poverty, it has to work in cooperation with the building sector, with energy providers and grid companies, regulating their work and adjusting his own agenda according to their feedback. The **Ministry** also has to exchange two-ways information with the **Agency for Social Assistance, the Agency for Sustainable Energy Development**, since their work is related to the Ministry's key strategies.

The **Ministry of Labour and Social Policy** is regulating the social services through its Agency, and it is also related to **SEDA, to Social Care NGOs**, and to the municipalities, which are responsible for the implementation of the Ministry's policies. The Ministry of Labour and Social Policy influences the national **legislation** regarding social issues, which in turn provides the activities of the Ministry with regulatory framework. The Ministry is also connected to the **Bulgarian Academy of Sciences, the Universities**, and various **research institutions**, since information about the latest advancement in scientific research and technology is crucial for the decision-making process of the Ministry. During the meetings of the Commission for Energy Efficiency and Energy Poverty a gap in the relationship between the Ministry of Energy and the Ministry of Labour and Social Policy was discovered. It became clear that for the identification of

energy poor household different sources of data have to be available, thus, there is a need for something like a hybrid institution between these two Ministries.

The **Legislation** is directly related to the Ministries, but also to energy companies, grid companies, building companies and some other stakeholders, providing them with regulatory framework for their activities.

The **Bulgarian Academy of Sciences** is connected to the **Universities, and other research institutions** in a network of collaboration. Together they provide the Ministries and the legislation with consultation when shaping new policies.

The **Municipalities** are entangled in a two-way exchange with almost all of the stakeholders, receiving various resources from the government and distributing them on a local level, receiving information, legislation, and guidance from the government, and regulating accordingly on a local level. **Banks and other financial institutions** are also involved in a two-way exchange, providing financing for various projects aimed at energy poverty alleviation, and receiving incentives and guidance from the government, so to adapt adequately their financial instruments.

Energy providers, Grid companies, Energy technology companies, and Green energy companies are all entangled in a network of mutual dependance and collaboration, while also maintaining relationships with **Energy communities, Home owners associations, Landlords, and Building companies.**

Building companies are receiving regulatory framework, funding, and information from the government, while collaborating with Home owners associations, **Landlords,** and **Technology companies.**

The POWERPOOR stakeholder universe exercise was initially prepared by SEA SOFENA. The exercise was introduced and performed during the Second National Stakeholders Liaison Group meeting on Oct. 3, 2022 in Sofia. Subsequently, the Universe was send to the participants and they made comments, suggestions, corrections, resulting in the Universe presented below.

Figure 2 Bulgaria Stakeholder Universe



National Liaison Group stakeholders:

Tsvetomira Kulevska - Director at "Coordination and Management of EE and RES" DG Sustainable Energy Development Agency Bulgaria

Sustainable Energy Development Agency (SEDA) is a legal entity at state budget support with headquarters in Sofia and has the status of an executive agency within the Ministry of Energy.

Chief Assist. Prof. Theodora Peneva, Economic Research Institute, Bulgarian Academy of Sciences

Chief Assist. Prof. Theodora Peneva is the leading scholar working on the definition of Energy poverty in Bulgaria.

Eleonora Gaydarova - Chairperson, CAC Centre for Sustainable Housing

Experienced housing and sustainability consultant with a broad skill set across consultancy and research in the housing sector, covering environmental, social and legal aspects of housing, housing affordability and energy efficiency. Specialization in the renovation of condominium housing and management of energy poverty as a result of the lack of access to affordable energy and poor overall quality of homes.

Genady Kondarev - Senior Associate For Central And Eastern Europe at E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape tackling the barriers and advancing the solutions to a safe climate.

Energy Agency Plovdiv (www.eap-save.eu)

The agency is promoting efficient and sustainable use of energy and renewable energy. Its services are utilized by the public administration, businesses communities, and consumers. It carries out feasibility studies, energy and environmental analyses and modelling, energy and air quality projects identification, development and management. More than 50 EU projects were successfully completed.

Maria Manolova- Project Manager at EnEffect Center for Energy Efficiency www.eneffect.bg

EnEffect's principal objectives are: to contribute to the development of energy efficiency policy at all management levels in Bulgaria to achieve economic and environmental benefits for the country; to assist the process of institutional development and capacity building in Bulgaria as a prerequisite for the initiation, development and implementation of energy efficiency projects and programs.

Habitat for Humanity Bulgaria - www.hfh.bg

This is a public benefit foundation that works to improve housing conditions and eliminate housing poverty, and develops its activities in four key strategic areas – affordable housing construction, housing improvement financing, development of innovative products and market-based tools to improve the accessibility of housing improvements, participation in housing policies, strategic and programmatic documents.

Petar Kisyov - Manager Green Synergy Cluster <http://greensynergycluster.eu/>

Green Synergy is a cluster organisation implementing sustainable solutions in the following fields: Sustainable Energy Planning, Renewable Energy, Energy Efficiency, Renewable Energy Communities, Smart Cities and Positive Energy Districts, Biomass to energy, Bio-based industries.

Prof. Dr. Georgi Georgiev – New Bulgarian University

Prof. Dr. Georgi Georgiev has been chair of the Department of Architecture since December 2012. Besides being a university lecturer he heads the Bulgarian Housing Association – the first non-governmental association in the field of housing and

housing policies. He has specialized in: consulting on urban and housing development, expertise in housing finance, management and housing renovation, energy efficiency and accessibility of housing, property management and urban regeneration. He is vice-chair of the working group in the thematic field: 3. Architecture and Quality of Life – Housing Policy of the Architects’ Council of Europe.

Step 2: Baseline Assessment

The state of play / baseline for what concerns energy poverty in the overall country has already been analysed at the beginning of the project and captured in D4.2. As part of the roadmap process, it is recommended to reevaluate the baseline parameters (subject to available capacities of course) to see if any changes have occurred since the last baseline assessment. The baseline assessment should then be presented during the meeting with the stakeholders of the National Liaison Group. Key policy areas to be, at least, presented as part of the baseline assessment are the following. Consider how energy poverty mitigation is addressed in the following areas and fill out the table below.

Updated Baseline Assessment

Updated according to the data available for 2020-2021:

- Arrears on utility bills 19.2%
- Inability to keep home warm 23.7%
- Household electricity prices 0.106
- Household natural gas prices 0.054
- Population living in dwellings with leak, damp, rot 11%
- Population at poverty risk 32.1%

(Source: EPAH)

Table 1 Bulgaria Updated Baseline Assessment

National Energy and Climate Plan (NECP)	The goal of reducing the level of energy poverty in Bulgaria is addressed in the Bulgarian NECP within the Internal Energy Market dimension, as part of the National objectives and targets. More specifically, Bulgaria will aim to achieve adequate protection of people at risk of energy poverty by providing target heating allowances via: A mechanism for the protection of vulnerable consumers following full liberalisation of electricity prices for final consumers, including households; Building stock renovation - The renovation of multi-family
---	---

	<p>residential buildings with a view to upgrading them to energy class C will lower the average monthly cost of heating homes and may result in low-income households being able to improve their living conditions sufficiently to be dropped from the category of households at risk of energy poverty; Improving energy efficiency by complementing the national target under Article 7 of Directive 2012/27/EU through a requirement for the implementation of measures, as a matter of priority, to improve energy efficiency for the benefit of vulnerable clients, including households affected by energy poverty and, when appropriate, in buildings used for social housing.</p> <p>The Bulgarian NECP was published in December 2019</p>
<p>The building sector - renovation efforts</p>	<p>Substantial efforts and financial aid has been given for increasing energy efficiency and the transition to RES. In the NECP is planned improving energy efficiency by complementing the national target under Article 7 of Directive 2012/27/EU through a requirement for the implementation of measures, as a matter of priority, to improve energy efficiency for the benefit of vulnerable clients, including households affected by energy poverty and, when appropriate, in buildings used for social housing.</p> <p>In 2015 the National Programme for Energy Efficiency of Multi-family Residential Buildings was voted. It provided up to 100% financing of projects for energy efficiency of multi-family residential buildings including renovation and restauration of buildings, implementation of energy efficiency measures that are prescribed as mandatory for the building in the energy efficiency survey, such as replacement of joinery (windows, doors, showcases, etc.); thermal insulation of the external envelope elements (external walls, roofs, floors, etc.); modernization or replacement of local systems for</p>

	<p>heating and/or cooling, etc. The aim of the Programme was to upgrade the energy efficiency of the buildings to class C.</p>
<p>Social care</p>	<p>In the NECP, in addition to the measures designed to encourage the active participation of consumers in the electricity supply market, measures designed to protect consumers are also applied. The policy for full electricity market liberalisation includes measures guaranteeing a smooth and gradual transition for households (in accordance with Article 15(8) of Directive 2012/27/EU). At present, the electricity market in Bulgaria is partly liberalised, with a regulated share of 40 %. In line with Third Liberalisation Package of the EU, Bulgaria took steps toward full liberalisation of its electricity market. The phasing out of regulated prices for all final consumers will boost competition among electricity suppliers but it will also expose consumers to greater price volatility. During this gradual transition the retail prices of electricity is to be deregulated in several stages until fully liberalised. Full electricity price liberalisation in the household sector will be given the green light only after a mechanism for the protection of vulnerable consumers of electricity has been put in place. These are the household consumers in a state of energy poverty due to a combination of low income, high energy costs and low energy efficiency of the homes they live in. The mechanism for protection of vulnerable consumers will include criteria for their identification, and financial and non-financial measures for their protection. It aims to ensure that the minimum quantity of electricity, other than the quantity of energy for heating for which consumers in this group are entitled to receive a separate allowance, are covered throughout the year. At present assistance is provided to vulnerable consumers on a means tested basis. Pursuant to the Social Assistance Act and Regulation No RD-07-5 of 16 May 2008 on the terms and procedure for</p>

	<p>allocation of targeted heating assistance, targeted heating assistance is provided to some socially vulnerable groups during the heating season. At present, about 250 000 individuals and families are recipients of such assistance, that means heating allowances are provided for the respective heating season (1 November—31 March), i.e. for 5 months, in an amount determined by an order of the Minister for Labour and Social Policy adopted before the beginning of the season, taking into account the electricity price for household customers determined by the KEVR on the basis of a projected consumption of 385 kWh electricity, including 280 kWh at the daytime rate and 105 kWh at the night-time rate (the quantity of energy required for heating one room). There is an option to select the type of fuel: solid fuel, electricity, gas or heat. This type of assistance will continue to be applied as a measure to support energy poor people and to protect vulnerable consumers of electricity, ensuring all-year cover of minimum electricity needs other than heating needs.</p>
<p>Policy to promote community-ownership of energy</p>	<p>Practically non-existing in Bulgaria. The Renewable Energy Directive Recast (RED II) has not been transposed to the national law so far.</p>
<p>Policy to promote (collective) finance / crowdfunding</p>	<p>Practically non-existing in Bulgaria.</p>
<p>The energy market (e.g. social tariffs / tax incentives)</p>	<p>Regulated energy market - The highly regulated Bulgarian electricity market is dominated by a few major players that have built a supply monopoly in the country. Despite the legal unbundling of the three distribution system operators from its vertically integrated undertaking, there is no real competition in the distribution market that could enable consumers to choose their supplier as there is only one licensed supplier in each geographical region. Bulgaria’s energy intensity is among the</p>

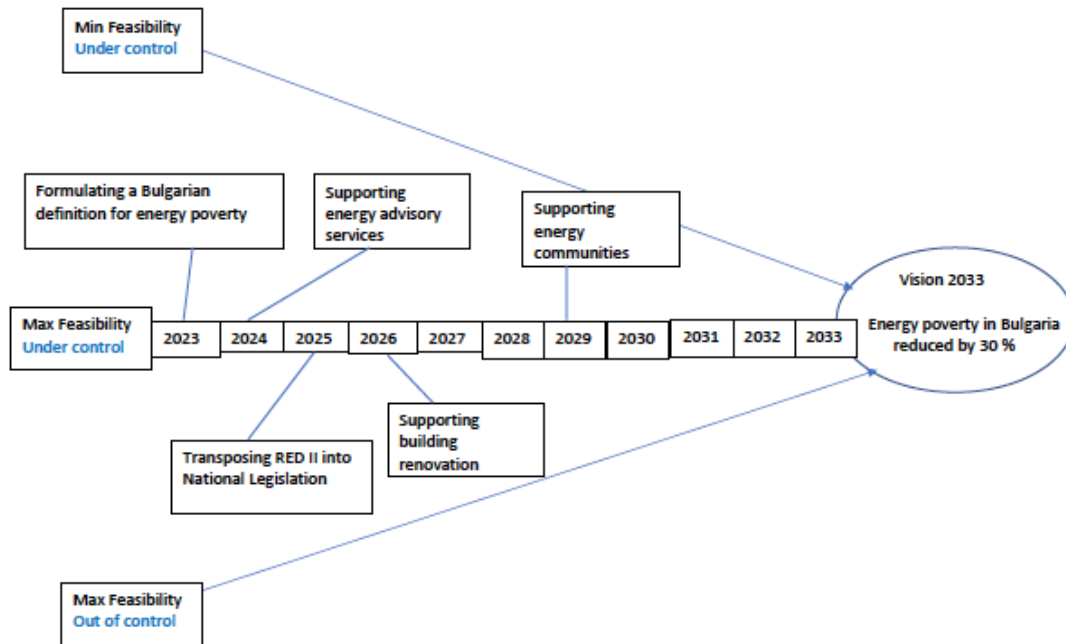
	<p>highest in the EU. The country is dependent on imported fuels from Russia and, at the same time, the country is attempting to develop itself as an energy hub.</p> <p>Social tariffs - In Bulgaria at the moment there are no social tariffs for energy or other incentives for vulnerable consumers. In the beginning of the Covid-19 crises as a social protection scheme there was a temporary measure to not disconnect households from the electricity supply during the winter season but the measure only applied to the 2019/2020 season.</p> <p>Replacement of appliances - The project Bulgarian Municipalities Working Together to Improve Air Quality (LIFE-IP Clean Air) is an integrated project according to the REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007. The duration of the project is 6 years; from 2018 to 2024. The project budget is EUR 16.7 million, and the financial contribution of the European Commission is 60%.</p> <p>The main objective of the Integrated project is improvement of air quality in the municipalities of Sofia, Burgas, Ruse, Stara Zagora, Veliko Tarnovo and Montana. The core instrument to achieve the objective is design and implementation of a scheme for transition to alternative forms of the household heating in the six municipalities. The scheme envisages transition from heating with wood and coal to heating with pellets, gas or use of the central heating network.</p>
Consumer protection	Energy prices on the regulated market are fixed, by reference, or formula- based, indicating low levels of

	competition in the energy sector. The country's regulatory regime is unpredictable.
SECAPs	Only 47 Bulgarian municipalities are signatories in the Covenant of mayors initiative, and very few of them have submitted a SECAP as yet. Instead, many municipalities adopt Energy efficiency programmes or RES transition programmes. POWERPOOR Bulgarian partner SEA SOFENA has been actively involved in the development of some of these Programmes (municipality of Isperrich, municipality of Sitovo), and has supported these municipalities to promote energy poverty alleviation actions. The Energy Efficiency / RES transition programmes of the municipalities of Shabla, Radnevo, Valchidol, Burgass already have a chapter on alleviation of energy poverty, including a strategy and relevant actions where the POWERPOOR approach is described as an example of a good practice.

Step 3: Set Vision, envision Actions and define Indicators

During the Second national Stakeholders Liaison Group meeting, the members of the Group proposed actions for tackling energy poverty, which were evaluated and discussed. The process was based on a POWERPOOR exercise and meant drafting of two cones: The first one presented the necessary measures to alleviate energy poverty in Bulgaria, evaluated in terms of feasibility and control. The second cone presented the impact and the effort needed for the implementation of the proposed action.

Figure 3 Future Radar Bulgaria



1. Energy poverty definition, Bulgaria	2. Energy Poverty alleviation measures in the SECAPs	3. Targeted energy efficiency financing scheme	4. Programme Regions in Growth	5. Replacement of appliances	6. Installation of smart energy meters	Min impact Min effort
7. Energy Renovation of Buildings	9. Establishment of energy advisory services to assist municipalities and private citizens	11. Advocate self-production of energy				
8. Energy Performance Certificates for energy poor households	10. Social energy tariff					
			18	16	17	Max impact Min effort
NOW	1	4		15		
2022		2	5			
			7		14	
		3				19
12. Foster affordability of Green Energy solutions	15. Crowdfunding		6	8	10	11
					9	
13. Advocate legislative changes in order for RED II to be transposed in the National law.	16. Promote the energy poverty topic in universities' curricula	18. Organise awareness-raising campaigns				12
14. Promote the establishment of energy cooperatives	17. Education about Energy Poverty in high schools programmes	19. Training sessions for vulnerable households about energy poverty				13
						20
						Max impact Max effort

Table 2 Bulgaria Actions

Policy Sector	Actions to be implemented	By when?	By whom?
Energy poverty definition, Bulgaria	A definition of energy poverty in alignment with the EU energy strategy and with the energy poverty situation in Bulgaria to be formulated and adopted by the government.	Jan. – Feb. 2023	The Commission for Energy Efficiency and Energy Poverty of the Council of Ministers. Lead by the BAS, co-created by a number of stakeholders: Ministry of Energy, Ministry of Labour and Social Politics, Sustainable Energy Development Agency, SEA SOFENA, etc.
SECAPs, other Energy Efficiency, RES transition, and Climate related municipal programmes	Include Energy Poverty alleviation measures in the SECAPs and other Energy Efficiency, RES transition, and Climate related municipal programmes.	2025	Municipalities, SEA SOFENA , other organisations/ consultants involved in the drafting of the SECAPs, and other Energy Efficiency, RES transition, and Climate related municipal programmes.
Building sector – energy efficiency, renovation	Targeted energy efficiency financing schemes to support the cost for improvements of households affected by energy poverty and, when appropriate, in buildings used for social housing. For example, through the Programme for energy efficiency in buildings , which is still under development and it is funded by the National Resilience and Recovery Plan. Substantial	2023 – 2027	Ministry of Regional Development and Public Works , Ministry of Energy; Ministry of Labour and Social policy; local authorities in consultation and collaboration with SEA SOFENA and the EPAOs; Building companies.

	<p>efforts and financial aid planned for increasing energy efficiency and the transition to RES by complementing the national target under Article 7 of Directive 2012/27/EU through a requirement for the implementation of measures, as a matter of priority, to improve energy efficiency for the benefit of vulnerable citizens.</p> <p>Organizing media campaigns and through the EPAOs promote to vulnerable citizens the Programme Regions in Growth, funded by the Just Transition Fund. It is focused on the transition to RES, upgrading to a higher energy class, usage of green technologies. Collaborate with local administration to prioritize energy poor households and vulnerable consumers.</p> <p>Organizing media campaigns and through the EPAOs promote to vulnerable citizens the next stage of the project Replacement of appliances - Bulgarian Municipalities Working Together to Improve Air Quality (LIFE-IP Clean Air). This is an integrated project according to the REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the</p>	<p>2023 – 2027</p> <p>2023 -2026</p>	<p>Ministry of Regional Development and Public Works; Ministry of Energy; Energy companies; other organisations working in the energy efficiency field.</p> <p>Municipalities, Producers of electric appliances for heating, SEA SOFENA, Energy Agency Plovdiv</p>
--	--	--------------------------------------	--

	<p>establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007. The duration of the project is 6 years; from 2018 to 2024. The project budget is EUR 16.7 million, and the financial contribution of the European Commission is 60%.</p> <p>The main objective of the Integrated project is improvement of air quality by reducing the emissions of small particulate matter (PM10) from domestic heating in the municipalities of Sofia, Burgas, Ruse, Stara Zagora, Veliko Tarnovo and Montana. The core instrument to achieve the objective is design and implementation of a scheme for transition to alternative forms of the household heating in the six municipalities. The scheme envisages transition from heating with wood and coal to heating with pellets, gas or use of the central heating network. The order is for delivery, installation and warranty service of electric heating devices, natural gas, heating, pellets and radiators.</p> <p>Collaborate with local administration to prioritize energy poor households and vulnerable consumers.</p>		
	<p>Promote the installation of smart energy meters, giving</p>	<p>2023 - 2033</p>	<p>Ministry of Regional Development and</p>

	<p>priority to energy poor households and vulnerable consumers.</p> <p>Support and consult energy poor household and vulnerable consumers to apply for the new stage of the Energy Renovation of Buildings Program for multi-family residential buildings. It is financed with nearly 1.4 billion euros from the National Recovery and Resilience Plan.</p> <p>Assist and consult energy poor household and vulnerable consumers to obtain Energy Performance Certificates for new and existing buildings. Advocate the development of financial schemes to support energy poor household and vulnerable consumers with the upfront cost of the technical evaluation of their buildings.</p>	<p>2023 – 2024</p> <p>2023 - 2027</p>	<p>Public Works, Ministry of Energy;; Energy companies; Building companies, others</p> <p>Ministry of Regional Development and Public Works; Municipalities; local administration; building companies.</p> <p>Ministry of Energy, Building companies; energy companies; certified evaluating agents.</p>
Social care	<p>Support the establishment of energy advisory services to assist municipalities and the private citizens, such as energy poverty alleviation offices (EPAOs).</p> <p>Advocate for the establishment of a social energy tariff and other measures for protection against disconnection from the grid for energy poor household and vulnerable consumers.</p>	<p>2023 – 2026</p> <p>2023-2024</p>	<p>Municipalities; local administration; electricity providers, NGOs.</p> <p>Ministry of Labour and Social policy; Ministry of Energy; other stakeholders.</p>

	Advocate self-production of energy for everyone, for individuals, households, or energy communities.	2026	Ministry of Labour and Social policy; Ministry of Energy; Municipalities; electricity providers; NGOs.
Green Energy	Foster affordability of Green Energy solutions, for example within the Programme Regions in Growth , funded by the Just Transition Fund and focused on the transition to RES, upgrading to a higher energy class, usage of green technologies. Assist energy poor household and vulnerable consumers in obtaining financial aid for the installation of RES, using the National Recovery and Resilience Plan , or other programmes.	2025 and later on	All stakeholders: NGOs, local municipalities.
Energy communities/ cooperatives	Advocate legislative changes in order for RED II to be transposed in the National law. In the Law should be included incentives for the energy communities' development based on their potential for greater social impact. Promote the establishment of energy cooperatives , at least one for every one of the larger municipalities. The action should also foresee energy poverty mitigation on local level.	2023 – 2026 2023 - 2033	Bulgarian Academy of Sciences , Council of Ministers, all stakeholders. Municipalities; Ministry of Energy; Ministry of Labour and Social Policy; NGOs; energy providers.

Crowdfunding	Advocate, facilitate, and network to support energy communities to secure funding for their projects using crowdfunding.	2023 - 2026	SEA SOFENA and Energy Agency Plovdiv; other NGOs; local municipalities.
Education about Energy Poverty	Promote the energy poverty topic as a research field and a study subject in universities' curricula.	2030	Ministry of Education, Bulgarian Academy of Sciences
	Encourage education about Energy Poverty in high schools programmes, especially vocational high schools.	2030	Ministry of Education, SEA SOFENA, other NGOs.
Awareness-raising campaigns	Organise awareness-raising campaigns to increase public awareness regarding energy poverty; involve local energy poverty alleviation offices in local campaigns; promote existing online tools that would help citizens and interested parties to access information about energy efficiency and energy poverty.	2023 - 2033	SEA SOFENA; local administrations; EPAOs; other stakeholders.
	Organise training sessions for vulnerable households about energy poverty and possibilities for energy efficiency optimisation. Promote the POWERPOOR EPAOs.	2023 - 2033	SEA SOFENA; local administrations; EPAOs; other stakeholders
POWERPOOR network	Foster further development of the POWERPOOR network of Energy Mentors and Supporters.	2023 - 2030	SEA SOFENA; POWERPOOR Energy Supporters and Mentors network

Table 3 Bulgaria Action-Specific Indicators

Indicator	Baseline (2022)	Target (date dependent on the action)
Definition of Energy Poverty	Under development	Jan. – Feb. 2023
Energy Poverty alleviation measures in the SECAPs and other Energy Efficiency, RES transition, and Climate related municipal programmes.	Insignificant	2024 30% of existing and newly defines Plans have a dedicated chapter
Replacement of old wood and coal heating devices with new ecological options in energy poor households and vulnerable consumers.	n/a	2024 No less than 6 000 households have their appliances replaced
Energy efficiency renovation of multi-family buildings.	7% of the living space in Bulgaria is class A or B.	2024 No less than 1200 buildings have increased their energy efficiency to class B.
Operation of energy advisory services (POWERPOOR Energy Poverty Alleviation Offices)	2	2023 increased number of Energy Poverty Alleviation Offices by 50%
Transpose RED II into National Law	n/a	2023
Capacity building and networking support programmes to energy communities	5	2024 Increased by 100%

Phase 2

The previous first three steps of the management cycle laid out the basis for the national roadmaps. The content of those steps will have been discussed during various stakeholder consultations. The results will inform the next two steps which take place within one year following the closure of POWERPOOR (or any other timeline decided upon during stakeholder consultations).

Step 4: Implement Actions and apply POWERPOOR Toolkit

This is where the concrete actions, defined previously, are implemented according to the established timeline. For each action, a plan has been created and highlight, at least, the following elements.

Table 4 Bulgaria Action Elements

Action under the policy sector: Energy poverty definition, Bulgaria A definition of energy poverty in alignment with the EU energy strategy and with the energy poverty situation in Bulgaria to be formulated and adopted by the government.	
The responsible entity and leading person	The Commission for Energy Efficiency and Energy Poverty of the Council of Ministers. Lead by the BAS, co-created by a number of stakeholders: Ministry of Energy, Ministry of Labour and Social Politics, Sustainable Energy Development Agency, SEA SOFENA, etc.
The target group for the action	All citizens of Bulgaria, and especially the energy poor households and vulnerable citizens.
Project design and documentation	The Commission for Energy Efficiency and Energy Poverty of the Council of Ministers , consisting of about 30 members (ministries, organisations and individuals) who are collaborating in order to finalise a national definition, since June 2022 is meeting regularly to work on the definition.

Scheduling	Jan. – March 2023
Budget	Not applicable
Drivers	The government’s obligation to protect the citizens from poverty and social exclusion, and to guarantee a just transition to RES for all.
Barriers	There is no government to vote the new definition yet.

Action under the policy sector: SECAPs, other Energy Efficiency, RES transition, and Climate related municipal programmes

Include Energy Poverty alleviation measures in the SECAPs and other Energy Efficiency, RES transition, and Climate related municipal programmes.

The responsible entity and leading person	Municipalities, SEA SOFENA , other organisations/ consultants involved in the drafting of the SECAPs, and other Energy Efficiency, RES transition, and Climate related municipal programmes.
The target group for the action	All citizens of Bulgaria, and especially the energy poor households and vulnerable citizens.
Project design and documentation	In 2022 very few municipalities in Bulgaria have approved a SECAP or any other Energy Efficiency, RES transition, and Climate related Plan or programme. Currently, these plans are being actively drafted. Thus, the consultants, responsible for the contents of the Plans/ Programmes should include a chapter on Energy Poverty alleviation measures.
Scheduling	2023 – 2026
Budget	Not applicable
Drivers	The government’s obligation, in alignment with EU energy poverty

	mitigation strategy, to take active measures to alleviate energy poverty in the country.
Barriers	Lack of public awareness about the extent of energy poverty in the country, and lack of understanding of the serious consequences energy poverty can have on people's health and social inclusion.

Action under the policy sector: Building sector – energy efficiency, renovation	
Targeted energy efficiency financing schemes to support the cost for improvements of households affected by energy poverty	
The responsible entity and leading person	Ministry of Regional Development and Public Works , Ministry of Energy; Ministry of Labour and Social policy; local authorities in consultation and collaboration with SEA SOFENA and the EPAOs; Building companies.
The target group for the action	Energy poor households and vulnerable consumers.
Project design and documentation	Targeted energy efficiency financing schemes can be funded, for example, through the Programme for energy efficiency in buildings , which is still under development and it is funded by the National Resilience and Recovery Plan . Substantial efforts and financial aid planned for increasing energy efficiency and the transition to RES by complementing the national target under Article 7 of Directive 2012/27/EU through a requirement for the implementation of measures, as a matter of priority, to improve energy efficiency for the benefit of vulnerable citizens.

Scheduling	2023 - 2027
Budget	Not applicable
Drivers	Bulgaria is one of the countries with the highest use of energy in households and needs to reduce its consumption. In order to reach its energy saving targets, the government has to assist energy poor households in covering the upfront cost for energy efficiency measures.
Barriers	The absence of a definition for energy poverty, which prevents the identification of energy poor households and providing them with financial aid.

Action under the policy sector: Building sector – energy efficiency, renovation

Organizing media campaigns and through the EPAOs promote to vulnerable citizens the Programme Regions in Growth, funded by the Just Transition Fund. It is focused on the transition to RES, upgrading to a higher energy class, usage of green technologies. Collaborate with local administration to prioritize energy poor households and vulnerable consumers.

The responsible entity and leading person	Ministry of Regional Development and Public Works; Ministry of Energy; Energy companies; other organisations working in the energy efficiency field.
The target group for the action	Energy poor households and vulnerable consumers.
Project design and documentation	Engaging Energy poor households and vulnerable consumers in the development of RES can be done with information campaigns targeting especially energy poor citizens and vulnerable consumers. These campaigns should be done in collaboration with the

	EPAOs to ensure an extended coverage of the vulnerable citizens.
Scheduling	2023 - 2033
Budget	Not applicable
Drivers	The government's obligation to guarantee a just transition to RES to all people; the ambition to reduce carbon footprint.
Barriers	Lack of understanding of power poverty, and of the great opportunities provided by transitioning to RES;

Action under the policy sector: Building sector - energy efficiency, renovation

Promote to vulnerable citizens the next stage of the project Replacement of appliances - Bulgarian Municipalities Working Together to Improve Air Quality

The responsible entity and leading person	Municipalities , Producers of electric appliances for heating, SEA SOFENA, Energy Agency Plovdiv
The target group for the action	All citizens who use wood and coal heating devices.
Project design and documentation	Organizing media campaigns and through the EPAOs promote to vulnerable citizens the next stage of the project Replacement of appliances - Bulgarian Municipalities Working Together to Improve Air Quality . This is an integrated project according to the REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007. The duration of the project is 6 years; from 2018 to 2024. The project budget is EUR 16.7 million, and the

	<p>financial contribution of the European Commission is 60%.</p> <p>The main objective of the Integrated project is improvement of air quality by reducing the emissions of small particular matter (PM10) from domestic heating in the municipalities of Sofia, Burgas, Ruse, Stara Zagora, Veliko Tarnovo and Montana. The core instrument to achieve the objective is design and implementation of a scheme for transition to alternative forms of the household heating in the six municipalities. The scheme envisages transition from heating with wood and coal to heating with pellets, gas or use of the central heating network. The order is for delivery, installation and warranty service of electric heating devices, natural gas, heating, pellets and radiators.</p> <p>Collaborate with local administration to prioritize energy poor households and vulnerable consumers.</p>
Scheduling	2023 - 2024
Budget	Not applicable
Drivers	The obligation to achieve a significant improvement of the air on the territory of different municipality, by reducing the emissions of small particulate matter (PM10) from domestic heating.
Barriers	<p>So far, the project does not prioritize energy poor households and vulnerable citizens. The lack of definition makes it difficult to identify them as a target group.</p> <p>Using alternative forms of heating can be more expensive, thus preventing energy</p>

	poor citizens to participate in the programme.
--	--

Action under the policy sector: Building sector – energy efficiency, renovation	
Installation of smart energy meters, giving priority to energy poor households and vulnerable consumers.	
The responsible entity and leading person	Ministry of Regional Development and Public Works , Ministry of Energy; Energy companies; Building companies, others.
The target group for the action	All energy consumers in Bulgaria.
Project design and documentation	Promote the installation of smart energy meters , giving priority to energy poor households and vulnerable consumers. Collaborate with local administration to prioritize energy poor households and vulnerable consumers.
Scheduling	2023 - 2033
Budget	It should be made available through the National Recovery and Resilience Plan.
Drivers	The obligation to optimise energy consumption in households.
Barriers	The smart meters will require training of the end-users on how to use them.

Action under the policy sector: Building sector – energy efficiency, renovation	
Energy Renovation of Buildings Program for multi-family residential buildings to prioritize energy poor households and vulnerable citizens.	
The responsible entity and leading person	Ministry of Regional Development and Public Works ; Municipalities; local administration; building companies.

The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Support and consult energy poor household and vulnerable consumers to apply for the new stage of the Energy Renovation of Buildings Program for multi-family residential buildings . It is financed with nearly 1.4 billion euros from the National Recovery and Resilience Plan.
Scheduling	2023 - 2024
Budget	The Programme has 1.2 billion budget and it offers 100% financial aid towards energy efficiency renovation.
Drivers	The obligation to increase the energy efficiency of multi-family buildings at least to class B.
Barriers	The application time is very short and there is a lot of documentation required.

Action under the policy sector: Building sector – energy efficiency, renovation	
Energy Performance Certificates for energy poor households and vulnerable citizens	
The responsible entity and leading person	Ministry of Energy , Building companies; energy companies; certified evaluating agents.
The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Assist and consult energy poor household and vulnerable consumers to obtain Energy Performance Certificates for new and existing buildings. Advocate the development of financial schemes to support energy poor household and vulnerable

	consumers with the upfront cost of the technical evaluation of their buildings.
Scheduling	2023 - 2027
Budget	None available so far
Drivers	The obligation to obtain Energy Performance Certificate for every building. The obligation to increase the energy efficiency of multi-family buildings at least to class B.
Barriers	The Certificate requires a professional evaluation of the energy performance of the building, which can be very expensive, and there is no financial aid for covering the cost.

Action under the policy sector: Social care	
Establishment of energy advisory services to assist municipalities and the private citizens	
The responsible entity and leading person	Municipalities; local administration; electricity providers, NGOs.
The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Support the establishment of energy advisory services to assist municipalities and the private citizens , such as energy poverty alleviation offices (EPAOs).
Scheduling	2023 - 2026
Budget	None secured as yet.

Drivers	The general public needs to have access to quality assistance in matters of energy efficiency, Energy transition, RES, etc.
Barriers	No funding is available for such an initiative as yet.

Action under the policy sector: Social care

Social energy tariff

The responsible entity and leading person	Ministry of Labour and Social policy; Ministry of Energy; other stakeholders.
The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Advocate of the establishment of a social energy tariff and other measures for protection against disconnection from the grid for energy poor household and vulnerable consumers.
Scheduling	2023 - 2024
Budget	Not applicable
Drivers	The need to protect the high number of energy poor households and vulnerable citizens, who are at risk of illnesses and death during winter due to inability to keep their houses warm and/ or to pay a high electricity bill.
Barriers	There is need first to identify who can be considered energy poor in order to facilitate the application of the tariff.

Action under the policy sector: Social care

Advocate self-production of energy	
The responsible entity and leading person	Ministry of Labour and Social policy; Ministry of Energy; Municipalities; electricity providers; NGOs.
The target group for the action	All energy consumers
Project design and documentation	Advocate self-production of energy for everyone, for individuals, households, or energy communities.
Scheduling	2023 - 2026
Budget	Not applicable
Drivers	The need to achieve greater energy security. The need to protect the high number of energy poor households and vulnerable citizens, who are at risk of illnesses and death during winter due to inability to keep their houses warm and/ or to pay a high electricity bill.
Barriers	The required legislation is still not in place.

Action under the policy sector: Green energy	
Foster affordability of Green Energy solutions	
The responsible entity and leading person	All stakeholders: NGOs, local municipalities.
The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Foster affordability of Green Energy solutions, for example within the Programme <i>Regions in Growth</i> , funded by the Just Transition Fund and focused on the transition to RES, upgrading to a higher energy class, usage of green technologies.

	Assist energy poor household and vulnerable consumers in obtaining financial aid for the installation of RES, using the National Recovery and Resilience Plan , or other programmes.
Scheduling	2025 and later on
Budget	All stakeholders: NGOs, local municipalities
Drivers	The obligation for transitioning to RES and to reduce pollution.
Barriers	Installation of RES has a high upfront cost, which makes it unaffordable for energy poor household and vulnerable consumers

Action under the policy sector: Energy communities/ cooperatives	
Advocate legislative changes in order for RED II to be transposed in the National law.	
The responsible entity and leading person	Bulgarian Academy of Sciences , Council of Ministers, all stakeholders.
The target group for the action	All energy consumers
Project design and documentation	Advocate legislative changes in order for RED II to be transposed in the National law. In the Law should be included incentives for the energy communities' development based on their potential for greater social impact.
Scheduling	2023 - 2026
Budget	Not applicable
Drivers	The obligation to facilitate the creation of energy communities and cooperatives.

Barriers	This is a legislative change, thus it will take a long time to be implemented.
----------	--

Action under the policy sector: Energy communities/ cooperatives
Promote the establishment of energy cooperatives

The responsible entity and leading person	Municipalities ; Ministry of Energy; Ministry of Labour and Social Policy; NGOs; energy providers.
The target group for the action	All energy consumers.
Project design and documentation	Promote the establishment of energy cooperatives , at least one for every one of the larger municipalities. The action should also foresee energy poverty mitigation on local level.
Scheduling	2023 - 2033
Budget	Municipal funding when available.
Drivers	The obligation to facilitate the creation of energy communities and cooperatives.
Barriers	This is a legislative change, thus it will take a long time to be implemented.

Action under the policy sector: Crowdfunding

The responsible entity and leading person	SEA SOFENA and Energy Agency Plovdiv ; other NGOs; local municipalities.
The target group for the action	All energy consumers.
Project design and documentation	Advocate, facilitate, and network to support energy communities to secure funding for their projects using crowdfunding.
Scheduling	2023 - 2026
Budget	No budget
Drivers	This is the way to finance something, which cannot be paid for otherwise.

Barriers	The existing legislation has to be modified in order to regulate properly crowdfunding.
----------	---

Action under the policy sector: Education about Energy Poverty	
Promote the energy poverty topic as a research field and a study subject in universities' curricula.	
The responsible entity and leading person	Ministry of Education, Bulgarian Academy of Sciences
The target group for the action	University students
Project design and documentation	Energy poverty specialists have to work in cooperation with the Academia in order to design appropriate programmes, related to the topic.
Scheduling	2030
Budget	none
Drivers	The need to educate specialists in energy poverty in many different scientific fields.
Barriers	Academic programmes are not changed easily, nor quick.

Action under the policy sector: Education about Energy Poverty	
Education about Energy Poverty in high schools programmes, especially vocational high schools.	
The responsible entity and leading person	Ministry of Education, SEA SOFENA, other NGOs.
The target group for the action	School students interested in the area of energy poverty.
Project design and documentation	Encourage education about Energy Poverty in high schools programmes, especially vocational high schools, organise extra

	curricula activities focused on energy poverty alleviation.
Scheduling	2030
Budget	none
Drivers	The need for trained specialists on Energy poverty.
Barriers	High schools' programmes are not changed easily, nor quick. There would be a lack of suitable teachers.

Action under the policy sector: Awareness-raising campaigns

Organise awareness-raising campaigns

The responsible entity and leading person	SEA SOFENA; local administrations; EPAOs; other stakeholders.
The target group for the action	All citizens.
Project design and documentation	Organise awareness-raising campaigns to increase public awareness regarding energy poverty; involve local energy poverty alleviation offices in local campaigns; promote existing online tools that would help citizens and interested parties to access information about energy efficiency and energy poverty.
Scheduling	2023 - 2033
Budget	None
Drivers	The need to increase public awareness about energy poverty.
Barriers	Lack of interest and shortage of resources on the part of local administrations.

Action under the policy sector: Awareness-raising campaigns	
Training sessions for vulnerable households about energy poverty	
The responsible entity and leading person	SEA SOFENA; local administrations; EPAOs; other stakeholders
The target group for the action	All citizens
Project design and documentation	Organise training sessions for vulnerable households about energy poverty and possibilities for energy efficiency optimisation. Promote the POWERPOOR EPAOs.
Scheduling	2023 - 2033
Budget	None
Drivers	The need to educate about energy poverty especially these citizens who are in an energy poverty situation/ or who are at risk.
Barriers	Lack of interest and shortage of resources on the part of local administrations.

Action under the policy sector: POWERPOOR network	
Foster further development of the POWERPOOR network of Energy Mentors and Supporters.	
The responsible entity and leading person	SEA SOFENA; POWERPOOR Energy Supporters and Mentors network
The target group for the action	Energy poor households and vulnerable citizens
Project design and documentation	Continue promoting and expanding the POWERPOOR network in Bulgaria, collaborate with the global POWERPOOR network. Promote the POWERPOOR toolkit as an easy access means to get quality advice on energy issues, as an instrument for energy poverty mitigation.

Scheduling	2023 - 2033
Budget	none
Drivers	The need to tackle energy poverty through support and mentoring.
Barriers	none

The POWERPOOR toolkit is incremental to the implementation of the individual actions and should be used actively by whichever stakeholder (e.g. municipality or POWERPOOR partner) has been identified, in the previous steps, as being responsible for implementation.

Figure 4 POWERPOOR Toolkit



Step 5: Monitor & Evaluate

One year after completion of the POWERPOOR project (or any other timeframe decided upon during the stakeholder consultations), the first monitoring & evaluation process should take place to see whether the roadmap's actions, and ultimately its vision, are being met. The exact indicators to be reviewed will depend on which ones have been chosen in Step 2.

Please fill out this table:

Table 5 Bulgaria Action-Specific Indicators

Indicator	Baseline (2022)	Target (date dependent on the action)
Definition of Energy Poverty	Under development	Jan. - Feb. 2023

Energy Poverty alleviation measures in the SECAPs and other Energy Efficiency, RES transition, and Climate related municipal programmes.	Insignificant	2024 30% of existing and newly defines Plans have a dedicated chapter
Replacement of old wood and coal heating devices with new ecological options in energy poor households and vulnerable consumers.	n/a	2024 No less than 6 000 households have their appliances replaced
Energy efficiency renovation of multi-family buildings.	7% of the living space in Bulgaria is class A or B.	2024 No less than 1200 buildings have increased their energy efficiency to class B.
Operation of energy advisory services (POWERPOOR Energy Poverty Alleviation Offices)	2	2023 increased number of Energy Poverty Alleviation Offices by 50%
Transpose RED II into National Law	n/a	2023
Capacity building and networking support programmes to energy communities	n/a	2024 under development

This table tracks the progress of general energy poverty indicators leaning on the categorization provided by EPAH.

Table 6 Bulgaria General Energy Poverty Indicators

Indicator	Baseline (2022)	Target (date dependent on previous table)
Arrears on utility bills % of population / per year	19.2 %	30 % reduction

Households unable to keep home adequately warm per year	23. 7%	30 % reduction
Population living in dwellings with leak, damp, rot	11%	30 % reduction
Population at poverty risk	32.1 %	30 % reduction
Existence of energy poverty strategy	no	yes
Awareness-raising campaigns targeting vulnerable households	no	yes

Recommendations on how to implement the national roadmap

The above process will have resulted in a national roadmap which has been co-created with a diverse group of stakeholders from the POWERPOOR National Stakeholder Liaison Groups. Following the national policy dialogues and consultations, partners will reflect on the roadmap drafting process and can suggest additional recommendations to specific stakeholder groups on HOW the above-listed actions can be implemented. Recommendations are aimed at the following groups and are included below:

For Sub-National Governments

Municipalities should adopt the national definition of energy poverty, apply the measures for alleviating energy poverty prescribed by the government, and provide feedback on the specific characteristics of the phenomenon.

Municipalities should incorporate a chapter on measures for energy poverty mitigation in their SECAPs, and also in their other Energy Efficiency, RES, and Climate Plans and Programmes.

Municipalities should try and create EPAOs within their structures, which should work in cooperation with their Social assistance team, with local building/ renovation companies, and with local electricity providers in order to be able to identify energy poor households and families at risk of energy poverty, and to tackle energy poverty in the most effective way.

Municipalities should provision the establishment of at least one energy cooperative within their territory, providing support, funds and assistance to the citizens.

For National Governments

To the **legislation of Bulgaria** should be added special regulations aimed at mitigating energy poverty, aligned with the EU policies for energy poverty alleviation, and serving the needs of the Bulgarians. The EC RED II should be transposed into National Law as soon as possible and serve as a basis for the establishment of energy communities/ cooperatives.

The Ministry of Energy should cooperate with the Ministry of Labour and Social Policy and with the Ministry of Regional Development and Public Works. This will allow them to optimise targeting procedures and data gathering procedures in order to establish a mechanism for continuous fine-tuning of the methodology for successful identification of energy poor households and families at risk of energy poverty.

Ministry of Labour and Social Policy in cooperation with the Ministry of Energy and with the Ministry of Regional Development and Public Works should design and endorse a special agency for energy poverty mitigation, which would include experts from all three Ministries and would be able to tackle energy poverty not only as variant of poverty, but also as result of poorly isolated dwelling and subsequently of lack of energy efficiency, therefore would be able to meet the needs of energy poor citizens in more comprehensive way.

The **Ministry of Labour and Social Policy** through its **Agency for Social Assistance** should keep a separate record of energy poor households, should employ experts to provide the citizens with guidance on possible measures for increasing of energy efficiency, on energy related funding opportunities, and/ or send the citizens to the local EPAOs, if possible.

The **Ministry of Regional Development and Public Works** should give priority to energy poor households when planning and introducing Programmes for Energy optimisation of houses, and others.

Targeted building renovation financing schemes, that address specific needs of energy poor households, need to be designed and provided. The government should secure funds for up to 100% grants for energy poor households in need of house optimisation, instalment of RES, etc. in order to facilitate just energy transition.

Special **(financial) incentives** should be designed in order to encourage energy poor households to participate in collective/ community energy actions.

The **Ministry of Education** should introduce in the schools curricula, especially the vocational schools curricula, the topic of energy poverty, and should encourage Universities and research organisations to promote the topic as a research field.

For Civil Society

The civil society organisations need to contribute to the dialogue about the legislation related to the **establishment and functioning of energy communities**, by providing insights about the challenges various social groups may face.

The civil society organisations should provide assistance to the process of establishment of EPAOs in order to facilitate local and personalised assistance to the energy poor households.

The civil society organisations should contribute further to the expansion of the POWERPOOR network of energy supporters and mentors, who work on the ground with energy poor households.

NGOs and civil society organisations together with the municipalities should have a leading role in campaigns for public awareness, activating their networks, in order to adjust the agendas of the campaigns to local needs/ preferences, thus, to maximise the impact of these campaigns.

For the Private Sector

Energy providers should work in cooperation with the Ministry of Labour and Social Policy in order to guarantee preferential treatment, social tariffs, and other assistance to energy poor households.

Building companies should adopt the latest requirements for the energy efficiency of residential buildings, and should have an expert on site who can assist energy poor households and discuss with them all possible financial schemes.

Energy appliances companies (household appliances, heating devices, cooling devices) should provide consultation on energy efficiency and on available financial aid for energy efficiency for citizens; they should work in cooperation with Energy Poverty Alleviation Offices in order to secure help for households in risk of energy poverty.