POWERPOOR

Empowering Energy Poor Citizens through Joint Energy Initiatives

POWERPOOR - Latvia'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.

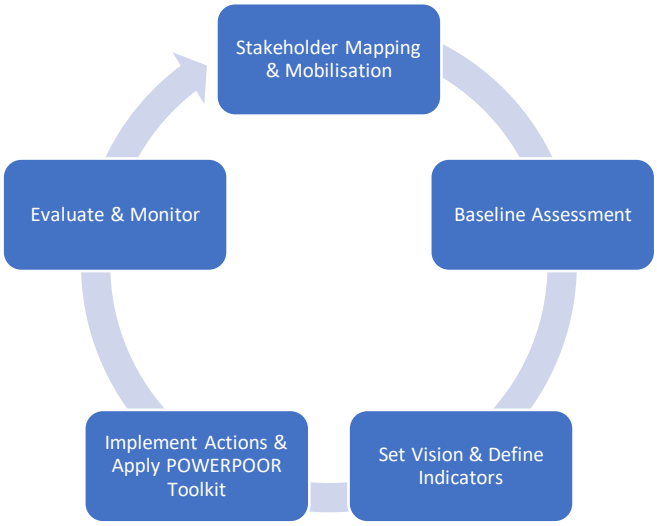
The key content defined in the national roadmaps will input the POWERPOOR exploitation plan as well as the POWERPOOR EU Policy Roadmap.

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

Step 1: Stakeholder Mapping, Commitment & Mobilization

In previously created D4.1 the stakeholders already have been categorised based on the level of necessity of involvement, their influence, expertise, and interest within a 0 to 5 scale (0 being the lowest and 5 the highest). For Latvia, the stakeholders' value (necessity of involvement) is indicated to be rather high with many of the stakeholders (86%) ranked 5. Similarly, the stakeholders' power is rather high as 86% is ranked with 5. As for the level of interest of the stakeholders, it is observed that the majority of them (57%) is ranked with 4 and 43% of them is ranked with 5. Similarly, for their level of expertise, 57% of the stakeholders are ranked with 4 and 43% of them are ranked with 5.

Stakeholders' universe

In the mapped Stakeholder Universe, the stakeholders with the closest working relation and connections are placed side to side with each other. Social departments of municipalities, municipal utilities companies and senior unions are positioned at the highest interest in alleviating energy poverty and also side by side as they have the closest working relation. Additional partnership connections are drawn in the form of dotted lines and the partnerships are described in the paragraphs below.

Jekabpils Senior union "Sasaiste" is highly affected by energy poverty and the members are vulnerable to a great extent, the union is highly adaptable and works in close relation

with social department of Jekabpils county in order to alleviate the energy poverty. Bond with social department of Jekabpils county provides mutual benefit and feedback loop for both parties on the implementation of the energy poverty mitigation schemes.

Social departments of the Jelgava city, Jekabpils county and Dobele county work under the same national network. Information and best practices on energy poverty mitigation is shared between them. They are not highly adaptable as their operation is governed by Social Services and Assistance Law and the related regulations, meanwhile they are able to influence things locally at municipal level.

Municipal utility companies are also interested in the mitigation of energy poverty as the energy poor households typically have issues with paying energy bills on time thus creating an unpredictable cash flow for the companies. Social aspect of the issue motivates the municipal utility companies to eliminate the energy poverty but it is not their main goal so they are not that adaptable in regards of energy poverty.

Red cross Jelgava is highly interested in alleviating energy poverty as the reduced poverty is one of their direct objectives and it would improve overall local economic situation. Red cross Jelgava is highly adaptable.

Development division of Dobele county is highly adaptable as far as implementation of development projects allows for it. Development division recently, as one of their directions, has been focusing also on energy poverty mitigation projects and solutions as a priority, bearing in mind the high energy prices.

Jelgava Municipal Real Estate Management (JNIP) aspires to alleviate the energy poverty with social and economic factors in mind. Also, close relation with Jelgava city municipality and Jelgava social affairs department is maintained.

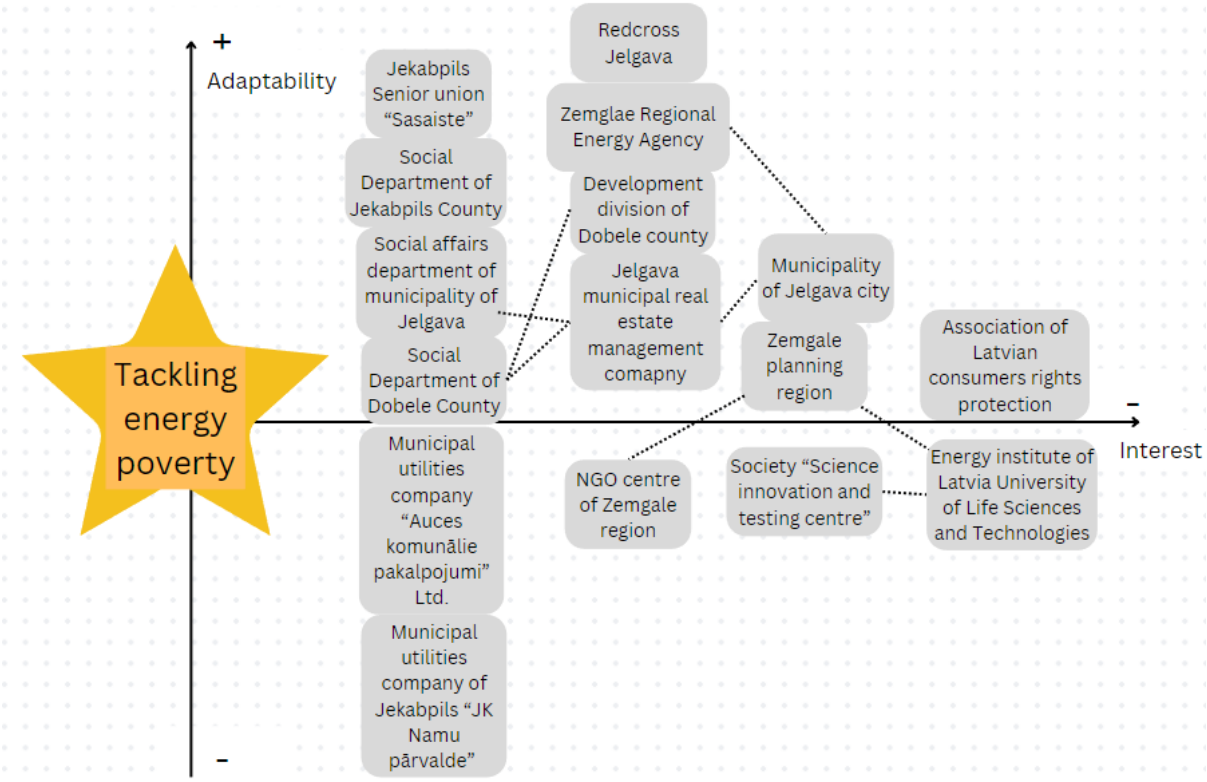
NGO centre of Zemgale region is assisting multiple NGOs in Jelgava that are dealing with wide range of issues including energy poverty and society development in general. They are assisting in mitigation of energy poverty beyond the POWERPOOR stakeholder group in Latvia.

Municipality of Jelgava city has a close working relation with Zemgale Regional Energy Agency (ZREA) and Municipal Real Estate Management (JNIP) company by coordinating priorities, achievable goals and managing resources.

Zemgale Planning Region has suggested collaboration with Energy institute of Latvia University of Life Sciences and Technologies and Society “Science innovation and testing centre” to perform potential science based researches in regards to energy efficiency to improve the energy poverty situation in the region.

Association of Latvian Consumers Rights Protection works on mitigation of energy poverty with stakeholders beyond the Latvia POWERPOOR stakeholder group.

Figure 2 Latvia Stakeholder Universe



Stakeholders at Latvia national level:

- Ministry of Welfare
- Ministry of Economics
- Ministry of Environment Protection and Regional Development
- Municipalities
- Social departments of municipalities
- State social insurance offices
- Contracting authority of energy efficiency programmes – Altum
- Planning regions of Latvia

At the outset of POWERPOOR project ZREA invited 10 different organizations to delegate participants for the Liaison group, 13 persons were delegated, 11 of them signed and submitted the consent forms. The first Liaison Group meeting was held in February 2021 virtually due to Covid-19 restrictions. The further Liaison group meetings have been held in the project course on regular basis in October 2021, in October 2022 etc. Liaison group members have provided advice, commented and improved the implementation of POWERPOOR in terms of the selection of energy mentors and supporters, their training, they have provided their input for the National Roadmap on mitigation of energy poverty

in Latvia, and have been involved as the active stakeholders of the stakeholders' universe.

Table 1 Latvia Liaison Group Members

Organisation	Target Group	Number of Representatives
Municipal utilities company (heat and water supply, house maintenance) of Auce municipality - "Auces komunalie pakalpojumi", Ltd.	Housing provider	1
Association of Latvian consumers rights` protection	Civil Society	1
Social affairs department of municipality of Jelgava city	Local Authority	1
Development division of Auce county municipality	Local Authority	1
Society "Development forum of technologies"	Civil Society	1
Energy institute of Technical faculty of University of Life Sciences and technology	Academia	3
Zemgale planning region administration	Regional Authority	1
Administration of Jelgava city municipality	Local Authority	1
Society "NGO support center of Zemgale region"	Civil Society	1
Municipal utilities company (house maintenance) of Jekabpils municipality – "JK Namu parvalde", Ltd.	Housing provider	1
Jekabpils senior citizens association "Sasaiste"	Social care	1

Step 2: Baseline Assessment

In Latvia, on 16/02/2021 an amendment in the Energy Law was adopted-the definition of energy poverty was included in the law, also criteria for households to be considered energy poor were included in the law. It is determined in the law that government institutions in their policy planning process and documents will take into account the number of energy poor households, they must be considered as priority in the energy efficiency policy measures. According to the Central Statistical Bureau (CSB) survey, 22% of Latvia's population were at risk of poverty in 2016. Only one policy - National Energy

and Climate Plan 2030 (NECP2030) addresses energy poverty with measures of reducing energy poverty and ensuring a fair transition. The targets have been set: to reduce the proportion of households which lack heat in their housing (7.5% in 2018) to be less than 7.5%[1] and to increase the number of electricity consumers receiving special service as the protected user (lower tariff of electricity) to 160,000 instead of current 80,000. Also, one of the criteria in energy efficiency improvement measures of buildings is reduction of energy poverty.

In order to determine whether a household is affected by energy poverty, the family's (person's) income level is evaluated but compliance with the status of a poor or low-income family (person) is used as a main criterion to determine if the household is energy poor. At the same time, this family (person) can receive an apartment benefit or the status of a social housing resident. According to the data provided by the Ministry of Welfare, in January 2020, 26,374 poor persons, or 1.38% of the total population in Latvia, were registered in Latvian municipalities. According to the data of the Ministry of Welfare, in January 2020, 39,198 low-income persons, or 2.05% of all residents in Latvia, were registered in Latvian municipalities. The law includes a requirement that the state or local government should implement energy efficiency policy measures as a priority in households affected by energy poverty. [2]

Table 2 Latvia Baseline Assessment Revision

	Short description	Existing targets/description
National Energy and Climate Plans (NECPs)	Policy planning document setting out Latvia's objectives and performance measures: -reductions in greenhouse gas emissions (GHG),-increase in the share of renewable energy sources (RES),-reductions in energy use and improvements in energy efficiency,-ensuring	The 2030 target for the indicator "the proportion of households that could not afford providing heat in housing" is to ensure that this rate will be less than 7.5% in Latvia. The services of the protected user (electricity consumers) are received by all those who are entitled to it (160 000 instead of 80 000) and targeted measures are

[1] https://likumi.lv/ta/id/312423-par-latvijas-nacionalo-energetikas-un-klimata-planu-20212030-gadam

[2] (https://lvportals.lv/skaidrojumi/324899-define-kas-ir-energetiska-nabadziba-2021)

	energy security and reducing energy dependency,-maintaining and improving the infrastructure of energy markets,-reducing energy poverty and ensuring a fair transition,-improving innovation, research and competitiveness.	being taken to substantially reduce energy poverty.
The building sector - renovation efforts	1) In accordance to the European Parliament and the Council Directive No. 2012/27/ES (of 25/10/2012) the Member State should develop a long-term strategy for buildings to mobilize investments in both public and private residential buildings and commercial areas 2) National programme for improvement of energy efficiency in multi residential buildings, part of it financed from EU funds amounting to €166 million is available to Latvian citizens in the energy efficiency programme till 31 December 2023 (closed on 18/12/2020). 3) On 11/02/2021 the Cabinet of Ministers approved a new support programme designed to renovate a single-apartment residential houses and improve energy efficiency. State-owned development finance institution ALTUM works on how the new aid programme will be implemented. Currently the support programme is open	1) The current energy performance targets for buildings are: - the availability of financing for economically justified projects throughout the territory of Latvia, including regions; -quality project management and supervision; - focusing on activity monitoring for achieving results, including energy savings; - the achievement of high energy efficiency and high-quality construction; -improvement of the procedures for the selection of the construction company; - reduction of resources' costs. 2) After refurbishment measures, energy consumption should decrease (less than 90 kwh/m2). Grant 50% of the eligible costs of the project. If necessary, a guarantee of up to 80% of the loan in the credit institution and loan. 3) Guarantee: if additional collateral is required for a bank loan, up to 30% of the loan amount, up to EUR 20000; Technical support for project technical documentation up to EUR 1000; Grant: One-off payment for increasing the energy efficiency class of a private house and

	and applications can be submitted.	reducing the energy consumption by 20%, up to EUR 5000.
Social care	During the rapid energy price increase in Latvia starting from 2021, Cabinet of Ministers passed a law defining support to all households that would relieve the financial burden.	Currently, at the end of 2022 such support is available[3]: • One-time 60 EUR grant for firewood purchase or 50% compensation of cost increase per cubic meter purchased over price of 40 EUR/m^3 • For pellets and briquettes 50% compensation of cost increase per ton that is purchased over price of 300 EUR/ton, support not exceeding 100 EUR/ton. • The state will compensate 50% of the electricity price that exceeds 0.160 EUR/kWh, but no more than 100 EUR/MWh. Any household will have to pay for the first 500 kWh consumed according to the electricity price set by the electricity trader, but the consumption exceeding this threshold will be compensated. • All households will be compensated for the increase in the price of electricity - a fixed fee of 160 euros/MWh will be applied to all households for the first 100 kWh every month and the state will compensate the remaining difference to the market price.
Policy to promote community-ownership of energy	Changes in Energy Law and changes in Electricity Trade Law defining energy communities adopted in July 2022, regulations	In development. Law defining energy communities is in force since July 2022, but regulations of Cabinet of Ministers are yet to be developed and published by February, 2023.

[3] https://www.em.gov.lv/lv/valsts-atbalsts-20222023-apkures-sezona

	of Cabinet of Ministers expected in 2022-2023.	
Policy to promote (collective) finance / crowdfunding	POWERPOOR	The information on crowdfunding has been provided in the training for POWERPOOR supporters and mentors. This practice in Latvia is not widespread yet.
Consumer protection	The electricity market law states that protected users, i.e. poor or disadvantaged families (persons), multi-child families or families (persons), in the care of which there is a child with disabilities, are entitled to receive the support in paying electricity bills as supported user.	Protected users receive following monthly support in paying electricity bills[4]: • for a poor or low-income household (person) – 5 euros; • for a family (person) who cares for a child with a disability, – 5 euros; • for a person with disability group I or their guardian - 5 euros; • for a family with many children – 10 euros.
SECAPs	Jelgava city SECAP	Measures targeting energy poverty**:** 1. Increasing the energy efficiency of residential buildings. 2. Promotion of energy self-generation for self-consumption. 3. Energy poverty mitigation. 4. Encouraging consumers to control their energy consumption and costs through smart meters. 5. Informative events on energy saving and increase of energy efficiency, information on daily energy consumption habits/use of energy equipment.

[4] https://likumi.lv/ta/id/323662-aizsargata-lietotaja-tirdzniecibas-pakalpojuma-noteikumi

	Jekabpils county SECAP	Measures targeting energy poverty: 1.Encourage the creation of pre-conditions to enable citizens to produce electricity for their own consumption using double side metering with the grid. 2.Increase of energy efficiency of multi-residential buildings. 3. Promotion of energy self-generation for self-consumption. 4. Energy poverty mitigation.
	Auce/Dobele SECAP	Measures targeting energy poverty: 1. Promotion of energy efficiency measures in multi residential buildings. 2. Information on energy bills about energy efficiency measures, about possibilities to reduce energy consumption. 3. Informative events on energy efficiency.

In POWERPOOR project using the Energy Poverty Guidebook for Energy Planning ZREA provides technical support to formulate the additional set of actions in SECAPs for mitigating energy poverty.

The following list of energy poverty mitigation actions has been proposed for the pilot municipalities and are in the process of inclusion:

- Adopting POWERPOOR tools for identifying energy poor citizens;
- Use of POWERPOOR tools - POWERTARGET, POWERACT, POWERFUND in tackling energy poverty;
- Tool for monitoring households' energy consumption to be used for providing individual assistance to save energy and to define public policies;
- Workshops for energy poor citizens informing them about energy saving measures and financing schemes supporting improvement;
- Supporting the preparation of project documentation for the renovation of apartment buildings;
- Support to household owners to pay the larger up-front costs of Renewable Energy installations and/or Energy Efficiency investments;

- Encouraging the use of energy poverty mitigation office;
- Distribution of information/educational material on behavioural changes, energy carrier selection, or more substantial such as building renovation, upgrading of heating system etc.;
- Facilitation of joint energy initiatives, assistance in the formation and promotion of renewable energy communities (Join a community, create a community, operate a community);
- Technical-legal and economic advice;
- Education and dissemination of information about energy efficiency and energy poverty in the general public.

It is planned that part of the proposed actions on mitigating energy poverty will be included in the following SECAPs:

- SECAP of Jelgava city 2021 – 2030, actions added as annex.
- SECAP of Jekabpils city 2021 – 2030 actions added as annex.
- Prepared proposals for SECAP of Dobele county 2022 – 2030.

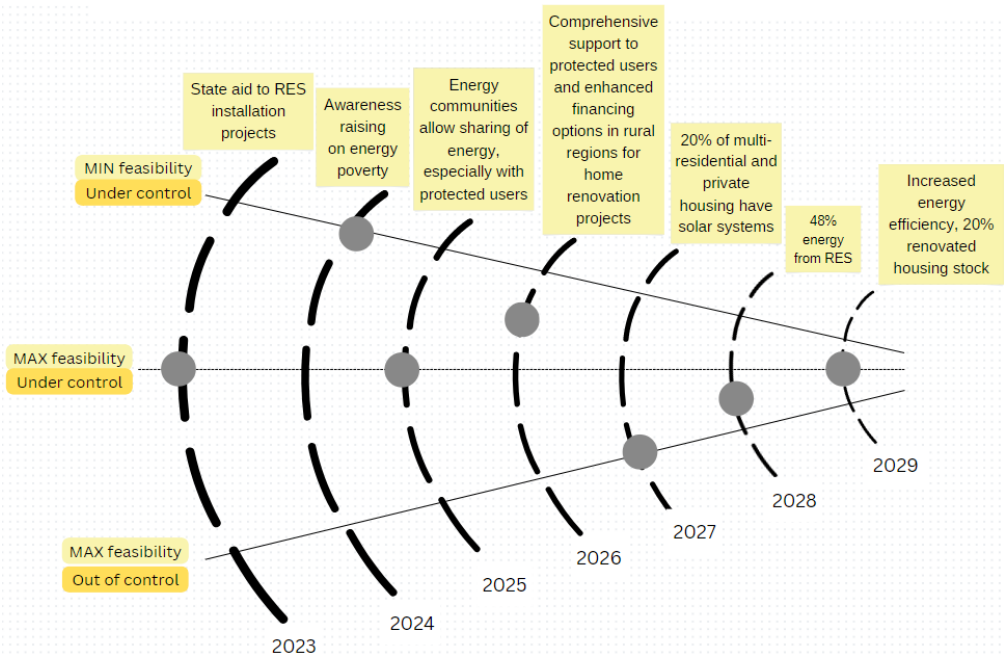
Step 3: Set Vision, envision Actions and define Indicators

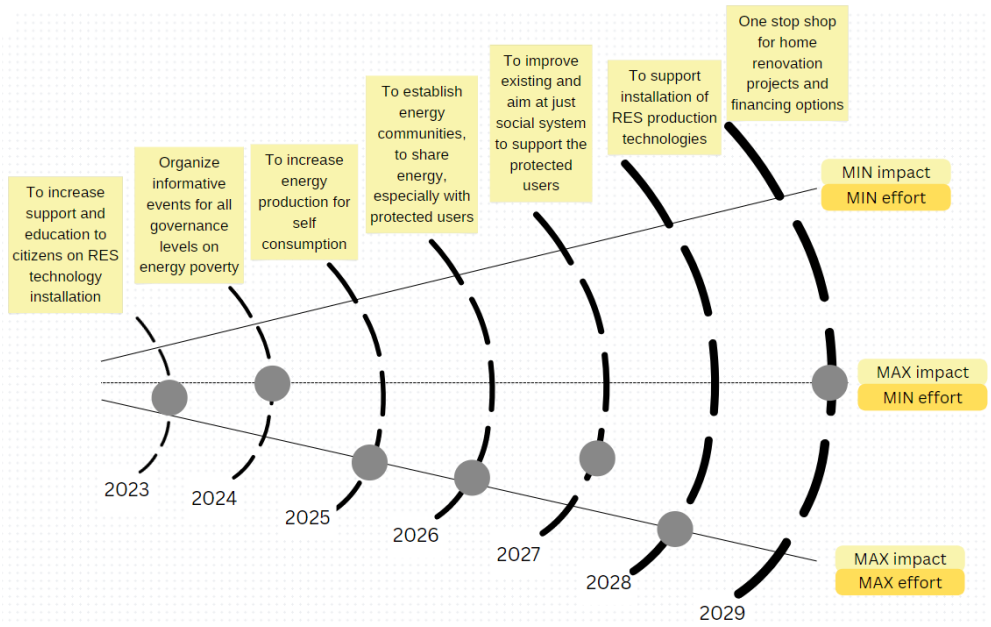
The energy poverty is a complex issue to tackle. Although fast paced changes and actions are desirable, the magnitude of affected sides is voluminous and it is a multi-angled issue which cannot be resolved fast, easily nor cheaply. To fight the energy poverty a multilevel approach must be used that implements vertical, top to bottom integration approach. In Latvia energy poverty is a recently defined term and currently the official definition of energy poor citizens include only those who have received a status of a protected person and receives governmental support to reduce the household's poverty. In this sense, the POWERPOOR approach (with 10% threshold) is more comprehensive because the households which have not received the status of a poor household yet their energy expenditure is high.

The vision for the 2029 is to reduce the energy poverty in Latvia to 1% as well as reduce number households who are at risk of poverty to 5% (26% in 2020)[5].

[5] https://energy-poverty.ec.europa.eu/observing-energy-poverty/national-indicators_en

Figure 3 Latvia Future Radar





Time scale has been developed and actions suggested by one-year steps. It should be taken in consideration that most of the actions and changes should happen simultaneously but realistically considering the available resources at a state level, the chosen action implementing pace is feasible.

Firstly, general society has to be informed and awareness needs to be raised on the energy poverty issues and possible solutions. The society needs to be educated on RES technology installation potential to kickstart the reduction of energy dependency. This would include financial incentives and other support to the ones who are already ready

to become prosumers by installing solar photovoltaic systems, for example, or other RES technologies. This action would be investment intensive, require medium effort and provide maximum impact on alleviating energy poverty.

The following activity would include education on all governance levels on energy poverty. This would include informative events which would deliver a great impact with medium effort. At all governance levels information would have to be passed down to general public via different channels (social departments, municipal educational campaigns, etc.).

Increase of energy production for self-consumption would facilitate greater independence from external providers and would enable citizens be more independent from energy price fluctuations.

Following previous targeted actions should be taken to encourage citizens to participate in energy communities which would require a huge effort. This would include financial support programmes to activate citizens to participate in an energy community, especially the category of protected users would have to be targeted as their financial capability to participate in energy community could be limited.

Also dedicated actions on state level should be taken to improve the existing social support system generally to support the protected citizens.

As the next step, to reach higher percentage produced from RES, support on RES technology installation would have to be provided, thus establishing energy self-sufficiency at greater extent. This would require bigger investment effort but the impact would be significant.

To reach energy efficiency targets, one-stop-shops with united approach, covering all areas of expertise on energy efficiency measures would have to be provided and further developed. Bearing in mind already existing state development finance institution ALTUM which is contracting authority in implementing housing stock energy efficiency programmes and projects, and provides consultations in most cities of Latvia, this action would require minimum effort and have maximum impact.

Society needs to be educated on issue of the energy poverty. All the actions need to be implemented as soon as possible to achieve the outlined necessary changes and they ought to be done simultaneously. The active and well informed part of the society is already taking steps and applying to state provided support to achieve energy self-sufficiency, the more passive part of the society though, which in most cases are under energy poverty risk, would need more support. Energy poverty is a complex issue that requires a great effort with feasible actions that need to be delivered in a strategic way.

Table 3 Latvia Actions

Policy Sector	Actions to be implemented	By when?	By whom?
Energy/ buildings	To increase energy production for self-consumption	2025	Ministry of Environmental Protection and Regional Development
Social care	Organize informative events for all governance levels on energy poverty	2024	Ministry of Welfare
Energy market	To establish energy communities, to share energy, especially with protected users, 2% of the population engaged in energy communities for energy sharing.	2026	Ministry of Energy and Climate
Social care	To improve existing and aim at just social system to support the protected users	2027	Ministry of Welfare
Environmental Protection and Regional Development	To increase support and education to citizens on RES technology installation	2023	Ministry of Environmental Protection and Regional Development
Energy/ buildings	To support installation of RES production technologies	2028	Ministry of Environmental Protection and Regional Development

Buildings	One stop shops for house renovation projects and financing options	2029	State development financial institution Altum

Energy poverty is a matter that cannot be determined easily by one indicator. EU Energy Poverty Observatory (EPOV) has defined the four most influential indicators that can measure and determine the level of energy poverty. The indicators are:

Arrears on utility bills

Share of (sub)population having arrears on utility bills, based on question "In the last twelve months, has the household been in arrears, i.e. has been unable to pay on time due to financial difficulties for utility bills (heating, electricity, gas, water, etc.) for the main dwelling?" [6]

Low absolute energy expenditure (M/2)

The M/2 indicator presents the share of households whose absolute energy expenditure is below half the national median, or in other words abnormally low. This could be due to high energy efficiency standards, but may also be indicative of households dangerously under-consuming energy. M/2 is a relatively new indicator that has been used in Belgium to complement other expenditure and self-reported indicators. Note: this indicator is influenced by the underlying distribution of absolute energy expenses in the lower half of households. If the median is relatively high and the distribution below very unequal, the M/2 indicator is high. [7]

High share of energy expenditure in income (2M)

The 2M indicator presents the proportion of households whose share of energy expenditure in income is more than twice the national median share. Note: where income distributions are more equal, variance in energy expenditure translates to higher 2M shares. High variance in energy/income shares can occur due to structural differences in energy expenditure between household groups, as well as in situations where energy is often, but not exclusively, included in rent. [8]

Inability to keep home adequately warm

Share of (sub)population not able to keep their home adequately warm, based on question. [9]

[6] Arrears on utility bills https://indicator.energypoverty.eu/

[7] Low absolute energy expenditure (M/2) https://indicator.energypoverty.eu/indicator?primaryId=1463

[8] High share of energy expenditure in income (2M) https://indicator.energypoverty.eu/indicator?primaryId=1460

[9] Inability to keep home adequately warm https://indicator.energypoverty.eu/indicator?primaryId=1461&type=bar&from=2019&to=2019&countries=LV

Table 4 Latvia Action-Specific Indicators

Indicator	Baseline (2022)	Target by (date dependant on action)
Number of support programmes to support RES installation	2 (2022)	5 (2023)
Number of informative events on energy poverty	6 (2022)	10 (2024)
At Risk of Poverty or Social Exclusion	26 % (2020) [10]	5% (2026)
Number of households producing energy for self-consumption	10000 Households [11]	40000 households (2025)
Number of established energy communities	1 (2022)	10 (2026)
One stop shop for home renovation projects and financing options	Currently one shop in most of the cities (2022)	Increased human resources and capacity to consult citizens per shop
Household electricity prices	0,16 EUR / kWh (2021) [12]	0,10 EUR / kWh (2025)
Renovated multi-residential buildings	10% (2022)[13]	20% (2029)
Share of renewable energy (RES) in final energy consumption (%)	39.01 % (2020) [14]	48% (2028)

[10] https://energy-poverty.ec.europa.eu/observing-energy-poverty/national-indicators_en

[11] https://buvinzenierusavieniba.lv/sadales-tikla-pieslegto-mikrogeneratoru-skaits-sasniedzis-10-000/

[12] https://energy-poverty.ec.europa.eu/observing-energy-poverty/national-indicators_en

[13] https://www.lsm.lv/raksts/zinas/ekonomika/zaudetais-siltums-latvija-nosiltinatas-tikai-ap-10-daudzdzivoklu-maju.a452018/

[14] https://www.em.gov.lv/lv/aer-energija

Phase 2

Detailed overview and description of the chosen actions by Stakeholder Liaison Group can be found in the tables below.

Table 5 Latvia Action Elements

To increase support and education to citizens on RES technology installation	
The responsible entity and leading person	Energy and Climate ministry
The target group for the action	Citizens Citizens who are at high risk of energy poverty
Action design	Develop a state-run campaign to clear the myths about RES technologies, especially solar systems and benefits of installing RES technologies. After successful campaign create educational courses for citizens on solar PV and other RES technologies.
Scheduling	2023
Budget	3M
Drivers	Necessity to transition to RES technologies
Barriers	Citizen interest and ability to deliver the information efficiently

Organize informative events for all governance levels on energy poverty	
The responsible entity and leading person	Ministry of Environmental Protection and Regional Development, Ministry of Economics, Ministry of Climate and Energy
The target group for the action	State, regional and municipality specialists which can influence reduction of energy poverty

Action design	Organize informative events at all levels of governance that would educate specialists on how to define and tackle energy poverty.
Scheduling	2024
Budget	0.7M
Drivers	The need to raise awareness of the issue
Barriers	Low level of specialist involvement and taking interest

To increase energy production for self-consumption	
The responsible entity and leading person	Ministry of Environmental Protection and Regional Development
The target group for the action	Owners of single private houses and multi residential houses
Action design	Multi-staged governmental support programmes that support RES technology installation both for single private and multi-residential house owners to become energy self-sufficient – prosumers.
Scheduling	2025
Budget	23M
Drivers	Necessity to become energy self-sufficient, market instability of imported energy sources, such as gas.
Barriers	Expensive prices of solar and wind systems.

To establish energy communities for energy sharing, especially with protected users

The responsible entity and leading person	Ministry of Economics
The target group for the action	All citizens, citizens under risk of energy poverty
Action design	National level support schemes that would support creation of energy communities and especially support the energy poor citizens in obtaining access to renewable and cheap energy.
Scheduling	2026
Budget	6M
Drivers	Rising energy prices
Barriers	Lack of regulation on energy communities and low-income level of large part of multi-residential building apartment owners, which limits them to invest in solar systems for sharing.

To improve existing and aim at just social system to support the protected users	
The responsible entity and leading person	Ministry of Welfare of the Republic of Latvia
The target group for the action	Citizens who are at high risk of energy poverty
Action design	Defining direct and effective actions at national and municipality level to reduce the overall poverty thus alleviating energy poverty. Greater support to protected users, tax reductions, also creation of municipal social energy communities.
Scheduling	2027
Budget	2M

Drivers	Enhancing of economic equality among citizens
Barriers	Restricted budget

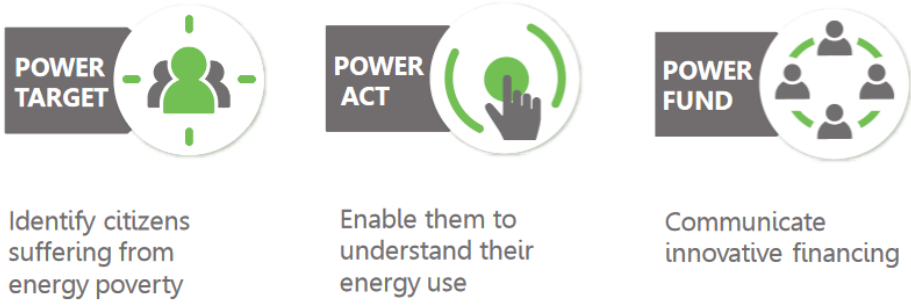
To support installation of RES production technologies	
The responsible entity and leading person	Ministry of Environmental Protection and Regional Development, Ministry of Economics
The target group for the action	Citizens, Citizens who are at high risk of energy poverty
Action design	Financial and advisory support to households for installation of RES technologies to motivate citizens to become prosumers.
Scheduling	2028
Budget	40M
Drivers	Zero emission goals by 2050 and necessity to become energy self-sufficient
Barriers	Restricted budget

One stop shop for home renovation projects and financing options	
The responsible entity and leading person	Ministry of Economics
The target group for the action	Citizens - home/apartment owners, Citizens who are at high risk of energy poverty
Action design	Further develop one stop shops for citizens to have an easy access to information and service providers, also redefine requirements to relieve the bureaucracy.

Scheduling	2029
Budget	2M
Drivers	Post-soviet housing stock that is highly deteriorated and energy inefficient
Barriers	Citizens -apartment owners' having insufficient financial means to invest in their housing

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

Table 6 Latvia Action-Specific Indicators

Indicator	Baseline (2022)	Target(date depended on action))	Target achieved?
Number of support programmes to support RES installation	2 (2022)	5 (2023)	
Number of informative events on energy poverty	6 (2022)	10 (2024)	

At Risk of Poverty or Social Exclusion	26 % (2020)	5% (2026)	
Number of households producing energy for self-consumption	10000 Households [15]	40000 households (2025)	
Number of established energy communities	1 (2022)	10 (2026)	
One stop shop for home renovation projects and financing options	Currently one shop per city (2022)	Increase human resources and capacity to consult citizens per shop (2029)	
Average household electricity prices	0,16 EUR / kWh (2021)	0,10 EUR / kWh (2025)	
Renovated multi-residential buildings	10% (2022)16	20% (2029)	

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

Table 7 Latvia General Energy Poverty Indicators

Indicator	Baseline	Target and Date (Vision)	Target achieved?
Inability to keep home adequately warm	4,9 % (2021)	3% by 2029	YES/NO (further details)
High share of energy expenditure in income	12,7% (2015)	4% by 2029	YES/NO (further details)
Arrears on utility bills	5,8 % (2021)	3% by 2029	YES/NO (further details)
Low absolute energy expenditure	10,7% (2015)	3.5% by 2029	YES/NO (further details)

[15] https://buvinzenierusavieniba.lv/sadales-tikla-pieslegto-mikrogeneratoru-skaits-sasniedzis-10-000/

[16] https://www.lsm.lv/raksts/zinas/ekonomika/zaudetais-siltums-latvija-nosiltinatas-tikai-ap-10-daudzdzivoklu-maju.a452018/

Baseline year on different indicators is inconsistent because of lack of statistical data, the most recent year with available data is taken as a baseline.

Recommendations on how to implement the national roadmap

For Sub-National Governments (municipalities)

Check ideas of National Roadmap on energy poverty mitigation actions developed by POWERPOOR project. [17] During the Roadmap creation process a wide range of specialists from different related fields have been involved and their opinions gathered on how to alleviate the energy poverty.

Contact the local energy poverty mitigation office for assistance. In the office it is possible to consult with an energy poverty mitigation specialist, gain access to more detailed information and get tailored tips for different measures.

Use the POWERPOOR toolkit. For example, the POWERTARGET tool can be used to identify the energy poverty level of a household, POWERACT can be used to suggest the household how to reduce the energy bills and POWERFUND can be used to disseminate information on energy communities.

For National Governments

Check ideas of National Roadmap on energy poverty mitigation actions developed by POWERPOOR project. [18] During the Roadmap creation process a wide range of specialists from different related fields have been involved and their opinions gathered on how to alleviate the energy poverty.

Use the best practices on how to alleviate the energy poverty on the Energy Poverty Advisory Hub (EPAH). [19] The information has been gathered through extensive research on topic of energy poverty throughout the Europe.

For Civil Society

Visit the local energy poverty mitigation office. In the office it is possible to consult with an energy efficiency and poverty mitigation specialist, gain access to more detailed information and get tailored tips for different measures.

Apply for the POWERPOOR home visit. This will provide the applicant with detailed consultation on heating system, energy efficiency of the building, energy efficiency of the appliances, energy habits, analysis of energy bills, energy communities and related

[17] https://powerpoor.eu/
[18] https://powerpoor.eu/
[19] https://energy-poverty.ec.europa.eu/index_en

topics in order to reduce the energy poverty in the household which is receiving the consultation.

Attendance of informative events on the topic of energy poverty. This is a great way to gain access to useful information, hear and express issues.

Attendance of informative events on community energy. In addition to useful information gained, citizens will be able to network and discuss potential of energy communities. For existing energy communities it will be a possibility to attract new members.

Energy generation for self-consumption. Becoming a prosumer reduces the energy that needs to be bought for ever-changing tariffs and stabilizes the income-expenditure ratio.

Creating/joining citizen joint initiatives on joint energy production.

For The Private Sector

Energy generation for self – consumption. This would provide self-sufficiency, predictability of energy costs and pay off in the long term.

Electromobility combined with energy self-generation. Further reduces the energy costs, especially in transportation intensive enterprises.

Use of waste heat. Recycling of energy reduces carbon foot print and reduces energy costs.

Energy efficiency in processes and buildings. Outsource or create a division that works especially on energy efficiency solutions in order to reduce overall energy expenditure.