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Energy Poverty Advisory Hub Handbook 3: A Guide to **Implementing** Energy Poverty Mitigation Actions

2024

Energy Poverty Advisory Hub Handbook 3: A Guide to Implementing Energy Poverty Mitigation Actions
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Advisory Hub
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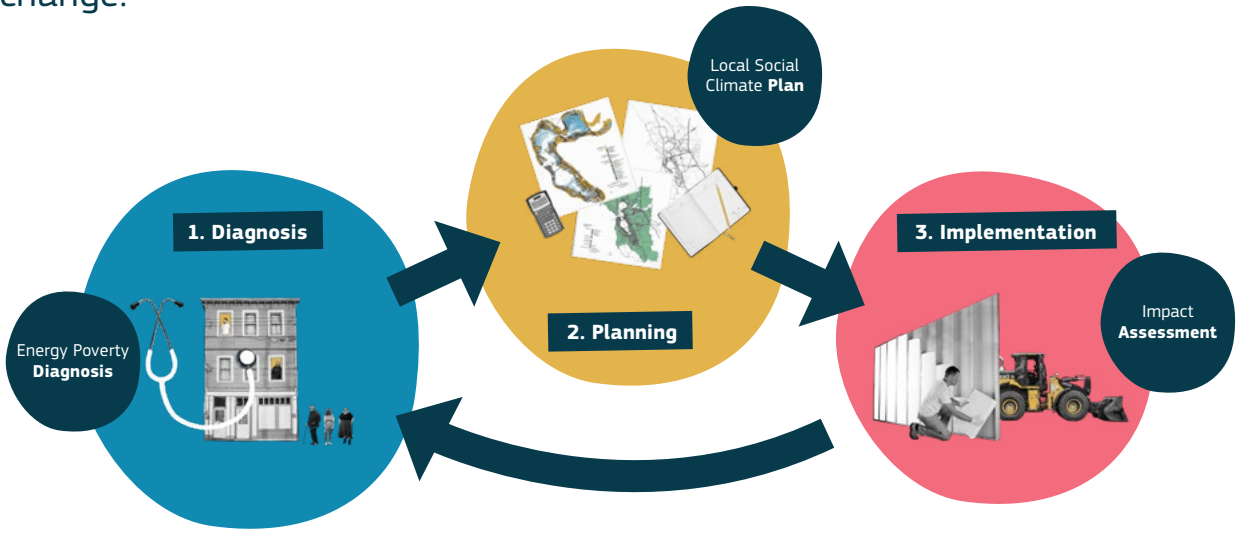
The **"Energy Poverty Advisory Hub (EPAH) Handbooks: A Guide to Understanding and Addressing Energy Poverty"** are a series of practical guidebooks for local governments and practitioners which ensure that the social dimensions of energy transition are addressed efficiently. This series consists of:

- The ***"Introduction to the EPAH Handbooks: A Guide to Understanding and Addressing Energy Poverty"*** which establishes the common background to all three handbooks
- The ***"EPAH Handbook 1: A Guide to Energy Poverty Diagnosis"*** which focuses on the practical assessment of energy poverty at the local level
- The ***"EPAH Handbook 2: A Guide to Planning Energy Poverty Mitigation Actions"*** which provides information on how to prepare and integrate an energy poverty mitigation plan within the *Local Social Climate Plan*
- The ***"EPAH Handbook 3: A Guide to Implementing Energy Poverty Mitigation Actions"*** which provides information on the execution of an effective energy poverty project.

The handbooks specifically target the staff of local governmental institutions; however, we welcome all the various actors using these as a guide to better understand the Energy Poverty phenomenon at the local level, and to possibly gain additional perspective that can drive concrete change.



INTRODUCTION

Welcome to the final phase of combating energy poverty - where insights turn into concrete action. In this third handbook, we move beyond diagnosis and planning, focusing on implementing energy poverty mitigation actions that are approved, financed and ready to be effectively executed. This final stage is crucial for transforming medium-to-long-term objectives into tangible, manageable actions. You will learn how to develop essential elements for your climate plans to ensure a just and fair transition.

Effective implementation requires thoughtful preparation and strategic refinement of objectives. This handbook offers detailed guidance on these preparatory steps, providing a clear roadmap to reach the implementation phase with a solid feasibility plan.

Our goal is to equip local governments and other local stakeholders with the tools and strategies needed to incorporate social aspects into existing plans, fostering the creation of ambitious yet feasible *Local Social Climate Plans*. This handbook details the various actions that have been presented in brief in the planning handbook and a methodology for drafting an action plan and supporting the monitoring process, making sure that the social dimension is effectively integrated into your climate strategies.

This handbook aims to provide practical advice based on collective peer experience and help municipalities face the challenges of this phase. To achieve this, the handbook will go through some additional preparatory steps to transform the *Local Social Climate Plan* into a concrete action plan and then provide specific insight for each group of actions. Local governments play a pivotal role in driving the implementation phase forwards as the main entity responsible for delivering the results. However, it is of key importance to guarantee a continued engagement of all the different stakeholders and promote synergistic actions.

Eradicating energy poverty is an ambitious goal requiring continual learning and adjustment mechanisms. This handbook aims to build on the cumulative knowledge gained until now in order to facilitate the work of local governments and encourage them to build on top of already tested effective approaches. Moving from an already solid base of information can anchor the achievements of a safe, socially and economically secure and sustainable society that is resilient to current and future challenges.

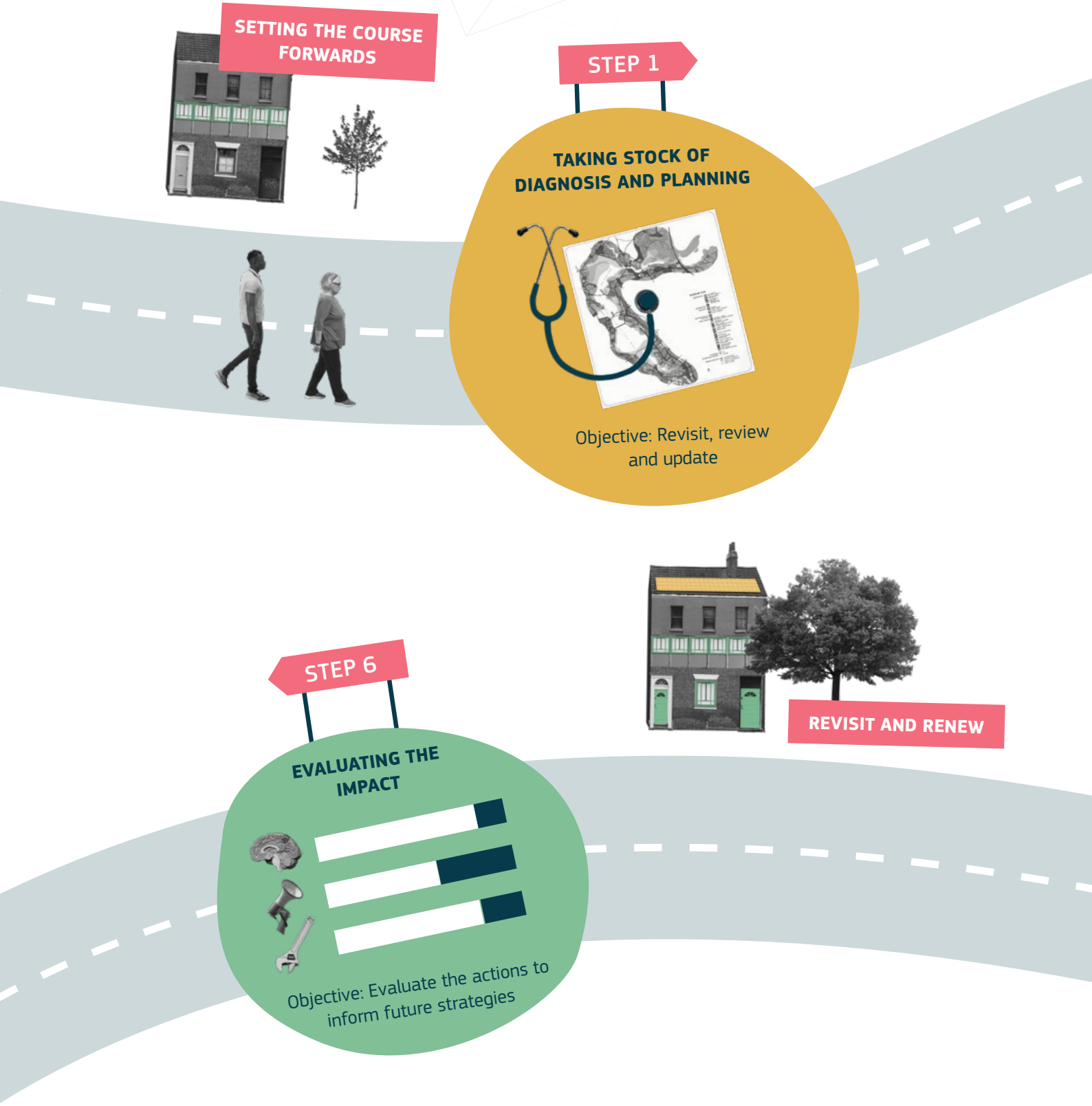
The "EPAH Handbook 3: A Guide to Implementing Energy Poverty Mitigation Actions" acknowledges that there is no **'one-size-fits-all'** approach for addressing energy poverty. The extent, severity and nature of energy poverty vary across regions and countries due to differences in climate patterns, buildings energy efficiency, socio-economic conditions and the availability of financial, technical and human resources.

Despite these variations, the 6-step approach presented in this handbook provides municipalities with a robust and tangible framework. By following these steps, municipalities can assess local energy poverty issues and prepare well-tailored actions suited to their specific local needs.

HOW TO USE THE HANDBOOK

Aligned with the advancements achieved in the planning phase, **EPAH Handbook 3: A Guide to Implementing Energy Poverty Mitigation Actions** shows how to detail the plan to make it functional for implementation. Moreover, it provides additional information about a series of **different actions already tested to tackle energy poverty**. The handbook will focus on the most commonly implemented groups of actions and integrate existing and novel information to guarantee that the social perspective is properly taken into consideration. You are welcome to read all the different groups of actions in order to better understand the possibilities you have at your disposal. However, during your implementation phase, it will be more important to focus on the section addressing specifically what you have decided to prioritise. The options presented in this handbook are not an exhaustive list and new innovative approaches are being continuously developed. For this reason, we welcome you also extracting the key information as a potential guide to be integrated into a broader perspective.

The last step of this book gives a perspective on the suggested activities to close a complete circle of the EPAH methodology and this is key to reflect on the entire phases.



STEP 2

DEVELOPING THE OPERATIONAL PLAN

Objective: Define detailed tasks and subtasks

STEP 3

DESIGNING A FINANCIAL PLAN

Objective: Include details on the financial flow expected

STEP 4

ESTABLISHING A MONITORING PLAN

Objective: Establish performance indicators to assess progress

STEP 5

APPLYING THE ENERGY POVERTY LENS

Objective: Tailor the action to vulnerable consumers

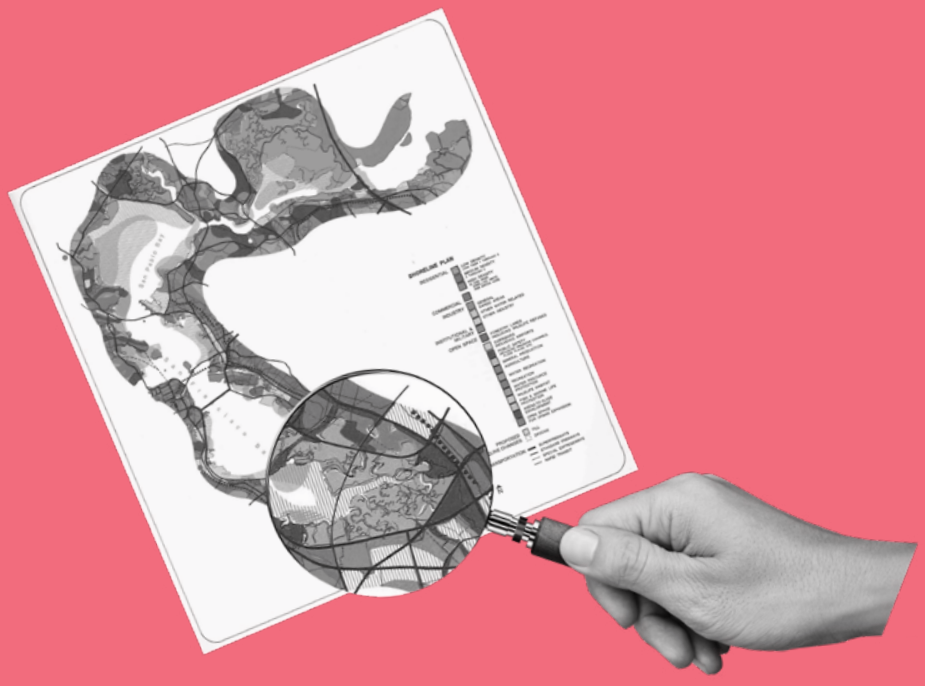
IMPLEMENT A SPECIFIC ACTION

SETTING THE COURSE FORWARDS

The *Local Social Climate Plan* has the main purpose of setting the overall objective and engaging with policymakers and key stakeholders to guarantee support and receive approval. However, before moving to the implementation on the ground, it is key to develop the plan further, zooming into all the different details that need to be considered in order to reduce risks of delays once the actions start. This section focuses on defining the way to reach the desired impact, assign responsibilities and estimate the financial flow.

By the end of this section, you will have a clear picture of the different tasks to perform, the stakeholders to be involved, the main implementers, the possible risks and how to avoid jeopardising the whole action.

While many of these steps can be performed by the working group, engaging the broader network of stakeholders may facilitate a sense of ownership and collaboration.



STEP 1 – TAKING STOCK OF DIAGNOSIS AND PLANNING

Objective Revisit, review and update

In an ideal scenario, the three phases - diagnosis, planning, and implementation - are meant to be performed one after the other, with possibly no delays from the end of a phase to the start of the next one. However, it may happen that there is a delay due to various reasons (e.g. elections, postponement of approvals due to waiting for new legislation etc.). By revisiting the diagnosis and planning process and updating strategies based on new developments, we ensure that implementation efforts are well-informed and aligned with your municipal objectives.

Start by revisiting the key documents and findings from the *Energy Poverty Diagnosis Report* and the *Local Social Climate Plan*. Next, consider any new developments that may have occurred since the completion of the two phases. This includes changes in legislation, policies, the vision of newly-elected politicians and parties or recommendations that may affect our approach. To quickly confirm the situation, engaging the working group established during the diagnosis phase is important to ensure that all team members are informed and aligned with our objectives. The involvement of the whole working group is paramount, especially following staff turnover, to update the new colleagues and quickly take them on board. When new individuals assume responsibility for the project, it is important to provide them with the necessary context and reasoning that led to the planning decisions. This ensures continuity and understanding.

Make sure that any updates or changes made are documented, updating the list of useful documents and resources to reflect the latest information available and maintaining the traceability and accessibility of these documents.

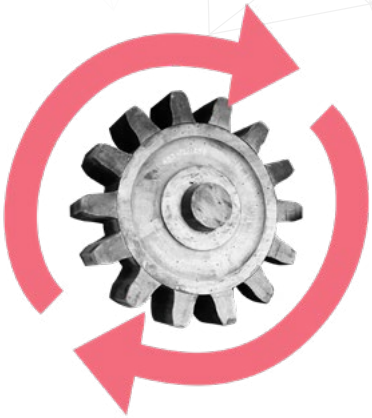
SUGGESTED LINKS

- EPAH Handbook 1: A Guide to Energy Poverty Diagnosis
- EPAH Handbook 2: A Guide to Planning Energy Poverty Mitigation Actions

SUGGESTED ACTIVITIES

- Take stock of the energy poverty diagnosis report.
- Take stock of the *Local Social Climate Plan*.

STEP 2 - DEVELOPING THE OPERATIONAL PLAN



Objective Define detailed tasks and subtasks

In the planning phase, you identify the action you want to proceed with and set the goal within the expected timeframe. To ensure clarity, facilitate management, guarantee an effective execution and anticipate risks, it is key to break down the overall action plan into multiple tasks. For each task, it is worth providing additional details specifying responsibilities, stakeholder involvement, costs, timeframes, resources needed and how the task engages and reaches vulnerable consumers. An **action plan** is needed to provide a tangible, practical and comprehensive roadmap of the action. It provides clear information on how, when and what needs to be done from a technical, legal, social and financial point of view.

To detail your project, you can use multiple approaches that normally differentiate on the way they develop the logic:

- **Chronological:** this foresees moving from the start and working forwards. The key question is, "What is the next step?"
- **Backwards:** this reverse approach starts from the objective and moves backwards. The key question is, "What needs to happen to achieve this?"

The methodology you decide to use should be functional to your specific case and aligned with your tested internal methodology. The more detailed the plan, the lower the risk of unexpected delays or challenges. You can also opt to use a combination of the two approaches as a way to better investigate the address of the different tasks and develop a comprehensive plan.

EXAMPLE OF HOW TO MAKE A REVERSE PLAN:

Start: Define the ultimate objective – from the planning phase. For instance "by 1st January 2027, 3 energy communities involving 200 citizens, 20% of which are vulnerable consumers, will be established and operative."

Question: What needs to happen before reaching the objective? "By 30th September 2026, the selected technology/activity should be up and operative."

Question: What needs to happen before reaching that milestone? "By 31st March 2026, the selected installation company should start the work."

Continue asking these kinds of questions until you feel you have reached the final level of details. Make sure you investigate all the different aspects (technical, legal, social, financial etc.), posing yourself different questions. For example: Do I need to do a procurement process? Do we have internal skills or need to acquire new capacities? Do we have resources or need to hire/outsource? Do we need extra funds and where can we find them? Do we need to design new procedures? etc.

Focusing on energy poverty, it is important to adapt your plan and include specific information assessing how the vulnerable consumers and target beneficiaries are considered in each task. Involving the citizens early on and keeping them on board during the whole process is fundamental to guarantee ownership, transparency and accountability.

To understand how to properly involve the energy poor, start by reviewing their descriptions from the diagnosis report and integrating any additional information. Profiling your consumers allows you to tailor your approach and interventions to be more relevant and impactful. It helps if you **put yourself in the shoes of your vulnerable consumers**, understand what they need and how best to reach them.

To effectively profile your vulnerable consumers, consider defining a fictional character (persona). The persona's description should include information such as hobbies, interest, usage of digital tools, working hours etc. This information could become useful when defining the framework of your actions. For example, information about working hours can help you define the opening hours of one-stop shops.

As a tool to formalise the detailed plan, you can use the Gantt chart and integrate it with additional notes, specifically mentioning how the vulnerable consumers will be involved in the different tasks and subtasks.

The table below presents an example of a potential persona.

Table 1: Example of a persona

SINGLE PARENT			
Single parent with low income and one or more children still dependent. There is the tendency to prioritise the wellbeing of the children. To engage them, particular attention needs to be paid to introducing a system for entertaining the children and one which fits in with working hours/school timetables etc.			
Neighbourhood	Area X		
Preferred type of contact	▸ Email ▸ Phone ✔ ▸ Website		
Dwelling description	**Ownership** ▸ Rented flat or beneficiaries of social housing.	**Energy Performance Certificates** ▸ Rented flat with low rent; EPC often F or G rating. ▸ Old appliances with high consumption.	**Energy measures** ▸ To reduce energy consumption, displays self-limiting behaviour and frequents external spaces (public urban areas) with the children to keep them warm/cool.
Priorities	Higher priorities are connected with the wellbeing of the children as regards health, food and education.		
Needs	▸ Fast and effective support ▸ Slim and easily accessible measures (not much time to allocate)		
Key stakeholders	▸ Teachers ▸ Doctors and healthcare practitioners ▸ Social Services		
Timeframe	May need immediate support but with a tendency to also evaluate for the longer term and to assess future benefits.		
Community engagement	Active in the community, especially when connected to activities with other parents and for the benefit of the children.		
Places for engagement	▸ Park ▸ School ▸ Health centre		

SUGGESTED LINKS

- Gantt tool - there are multiple resources online; choose one in the most suitable language for you.
- Example of a persona (how to create a "persona")
- Description of vulnerable household characteristics and quantification of these target groups in the European Union and its Member States

SUGGESTED ACTIVITIES

- Identify the possible tasks and subtasks needed to implement the selected actions. Include information as follows: responsible person, start and end date, stakeholders involved, energy poor involvement, possible risk and how to mitigate them.
- Get your team together to review the detailed plan.
- Engage external stakeholders for an additional check.
- Profile your target group and define how you will involve them

STEP 3 – DESIGNING A FINANCIAL PLAN

Objective Include details on the financial flow expected

One of the key elements to defining the action to prioritise was to assess the economic factor (Step 7 of the planning handbook). At that stage, it was important to ensure the availability of funds to completely cover the costs of the action and/or access to external possibilities (in the form of grants, tenders or loans). Once assured that the funds are available, developing a comprehensive financial plan provides an overall perspective on the expected expenditure timelines and potential returns on investment (if applicable). Building on the detailed plan of Step 2, you can now integrate financial information in strong collaboration with the financial department. Understanding and planning the cash flow will be paramount to guarantee steady implementation and reduce delays and risks of dropping out from the task due to lack of availability of funds at the right moment of implementation.

A detailed **financial plan** defines the type of expenditure that can occur and when it is expected to be due for each task and subtask.

Generally, you can refer to three main categories of information to evaluate:

- **Capital expenditure (CAPEX):** Determine funds needed for acquiring, upgrading or maintaining tangible assets (e.g. purchasing a PV system, acquiring a space for a one-stop shop (OSS)). Commonly, these expenditures are expected to happen only once during the implementation.
- **Operational expenditure (OPEX):** Consider day-to-day costs to keep the action operational, including legal fees, salaries, supplies and utilities (e.g. the maintenance and insurance for a PV system, the salary of the staff operating an OSS). These expenditures are recurrent and should be estimated for the whole duration of the implementation and even further.
- **Revenues:** Assess potential additional revenue streams, such as selling surplus energy or renting out space.

Table 2: Example of inclusion of financial information

Main task	Subtask	Potential expenditures	Type of expenditure	Expected time of expenditure	Risk
Preparatory construction and installation of PV	Draft terms of reference of the procurement	Legal advice Publication of tender on local/national newspapers	CAPEX	DD/MM/YY	No bidders, so expenditure needed to happen again to promote the tender better or to review the terms of reference
	Evaluation of bids	Payment of external evaluation and notary service	CAPEX	DD/MM/YY	No suitable bids, so expenditure needed to happen again for a second evaluation
	Kick off the work – launch meeting	Cost of organisation of the public launch	CAPEX	DD/MM/YY	

While some actions, such as awareness campaigns, capacity building or behavioural change, have clear deadlines, some others, such as energy communities, one-stop shops or energy advice points, are designed to keep functioning after the initial launch. In this last case, it is key to also provide details on the long-term **financial sustainability**, identifying the sources of funding that will be used to guarantee the continuous functioning of the service.

Ideally, the **municipal budget** should cover the cost of the action completely. However, larger projects (e.g. connected with renovation) may require accessing **multiple sources of funding**, such as regional or national grants, European subsidies, development bank loans and others (e.g. collective funding from the community). Especially when **external investors** are involved, it is common to require a detailed financial plan before deciding how to finance the action. Developing a detailed financial plan facilitates the identification of potential risks and uncertainties associated with the action, including regulatory changes, market volatility and operational challenges.

SUGGESTED LINKS

- European City Facility investment concept
- Smart Cities Marketplace

SUGGESTED ACTIVITIES

- Identify related capital expenditure (CAPEX) and operational expenditure (OPEX) for each task and subtask. If applicable, estimate potential revenues associated with the project.
- Prepare a cash flow plan and determine when the different funding sources will be required during the implementation phase.
- Present the financial plan to the working group and check consistency.

STEP 4 – ESTABLISHING A MONITORING PLAN

Objective Establish performance indicators to assess progress

Together with the detailed plan (Gantt) and the financial plan, it is important to define the **monitoring plan**. This step involves setting up a structured document that covers various components from the baseline definition to mid-term assessments based on a combination of different indicators.

The indicators include the one identified during the diagnosis and selected in the planning (energy poverty indicators), plus other additional indicators designed specifically to monitor the progress and effectiveness of the approach (Key Performance Indicators - KPIs). KPIs should be designed to help local municipalities measure implementation progress. View the monitoring process as an opportunity to gather additional information that could inform the design of future actions.

The monitoring plan builds on the detailed plan developed in Step 2 and integrates additional information:

- **Energy poverty indicator:** If the task directly affects the indicators, e.g. the number of vulnerable consumers' homes renovated.
- **Key performance indicator:** To evaluate internal advancement that is not directly connected with the overall objective's indicators but constitutes a parameter to take into consideration based on the logic of cause-effect established in the detailed plan, e.g. the number of focus group meetings which take place.
- **Data collection method and tool:** How we will know the advancement of the data[1].
- **Monitoring timeframe:** How often and when exactly the monitoring takes place. It includes milestones and deadlines.
- **Monitoring lead:** The person in charge of checking progress and reporting back to the working group and key stakeholders (when needed).
- **Responsible actors:** Who is in charge of guaranteeing that the expected result is achieved.
- **Resources needed:** In case there are additional resources needed to collect the specific information (e.g. if there is the need to use a dedicated tool or conduct specific surveys).
- **Feedback and adjustments:** In case of need.
- **Financial flow:** Includes the evaluation of the expenditure per task and subtask. Connecting with the percentage of progress of the task, it can facilitate a quick understanding of the progress of expenditures. This element should take place in collaboration with the financial department and connected with the financial plan developed in Step 3. Collecting financial indicators can also support the future evaluation of the most cost-effective actions implemented and become an important input for the design of future strategies.

1 When dealing with data, make sure that you are compliant with the national General Data Protection Regulation (GDPR).

The **milestones** set in the monitoring plan are clear opportunities to involve beneficiaries (vulnerable consumers) and key stakeholders (CSOs, social services, energy agencies etc.) and to incorporate their feedback. This is key to making sure the community members can voice concerns, provide suggestions or ask questions. Including community interests ensures that the plan reflects the needs and priorities of those it aims to serve, which will also improve its chances of being successful. Additionally, it clearly delineates accountability, demonstrating that actions taken align with the consumers' best interests. In essence, a well-defined timeframe is not merely a scheduling tool but a cornerstone that underpins the effectiveness and success of any plan by providing structure, momentum, focus and accountability.

If an indicator is not advancing as expected, it is worth conducting a **risk assessment** to identify potential issues early and develop strategies to address them promptly. Establish a system to detect red flags during the monitoring process. This proactive approach helps mitigate risks and ensures timely corrective actions.

Monitoring and evaluating the action requires a specific time schedule and budget. Ensure that the monitoring timeframe is included in the detailed plan in Step 2 and the related expenditures in the financial plan developed in Step 3.

The key monitoring plan in the implementation phase should refer to the specific task and subtask identified in the Gantt (Step 1) and become an active document to check often in order to guarantee that the process is proceeding as planned. However, it is worth including in the monitoring plan a first part that refers to the higher and ultimate objectives set in the actions. This part helps keep an eye on the overall achievement

Table 3: Example of monitoring plan

OVERALL LEADING OBJECTIVES AND INDICATORS									
Overall Action		Access to incentives for renovation for vulnerable consumers							
Energy Poverty Indicators affected		Percentage of persons/ households spending up to XX% of their income on energy services		F+G+H band (EPC) dwelling/total number of dwellings		Persons aged over 65 in energy poverty		% of people that declare that the process for accessing support services is complicated	
OPERATIONAL MONITORING TABLE									
Tasks and Subtasks	**Perfor-mance indicators**	**Data collection method**	**Responsible**	**Which overall indicator will affect**	**Time frame**	**Base level**	**Target level**	**Resource needed**	**Feedback and adjustment**
Identification of the target beneficiaries	Number of people selected	Question-naire and interview	Social Services	Person aged over 65 in energy poverty	Early stage of imple-mentation			15 surveyors x 10 days	Long process; evaluate an indirect selection through focus groups and meetings

SUGGESTED LINKS

- Types of key performance indicators

SUGGESTED ACTIVITIES

- Review the selection of energy poverty indicators underlining which ones will be specifically addressed. Define and integrate key performance indicators.
- Develop a monitoring plan that integrates all the above mentioned information.
- In case you can already identify critical tasks that can present a risk, brainstorm with the working group on possible corrective actions.

IMPLEMENT A SPECIFIC ACTION

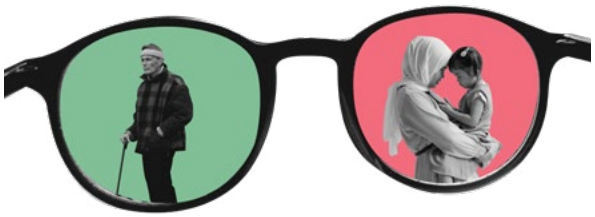
In the EPAH planning handbook, we presented a set of actions that are increasingly being adopted to address vulnerable consumers. These actions were selected based on long experience of implementing services addressing citizens and supporting local communities, including through EPAH's technical assistance programme. Aiming to target vulnerable consumers does not mean reinventing the approach established completely, but building on the experience gained, adding a new level of understanding and designing tailored tasks to ensure their inclusion.

A broad selection of guidelines for implementing each action is already available online. However, the following section focuses on adapting the actions to tackle energy poverty.

You are welcome to start reading the specific information about the action you have decided to prioritise in the planning phase, but do not limit yourself to only that. Input from others can deepen your understanding of the topic and be key to developing an integrated approach, where you have the chance to collect new information to reply to any questions you may have.

The entire internal working group must develop an integrated knowledge of the different options to facilitate discussion and joint brainstorming. If necessary, you may also consider involving an external professional service provider or consultant to provide additional knowledge on a specific action.

STEP 5 – APPLYING THE ENERGY POVERTY LENS



Objective Tailor the action to vulnerable consumers

In this section, we will review the cluster of activities defined in the EPAH planning handbook and provide additional insights on how to tailor their implementation to specifically address vulnerable consumers as your target group.

AWARENESS CAMPAIGNS

Awareness campaigns are essential in tackling energy poverty, supporting all of the different phases and actions. There are different types of vulnerabilities, as detailed in the Intro handbook. It can happen that, for a series of different cultural and social reasons, consumers do not realise that they are in a vulnerable situation. An awareness campaign can effectively help consumers understand that feeling discomfort at home and struggling to pay energy bills is avoidable and to know what their options are to improve their wellbeing.

To ensure the effectiveness of an awareness campaign, several aspects need to be carefully taken into account:

- **Target group:** Each group of vulnerable consumers may present different approaches. As mentioned in Step 2, profiling can help narrow down key elements that need to be considered. For example, the approach adopted to address the elderly or young may differ due to their different digital literacy.

- **Objective:** Generally, there are two types of messages:

  - **Informational messages** provide factual data and knowledge on energy poverty, services available, key concepts on energy efficiency, appliances etc.

  - **Transformational messages** focus on driving behavioral change by inspiring and motivating people to take action. They go beyond providing information and seek to create a personal connection and a sense of urgency. These messages might highlight personal stories of individuals who have improved their wellbeing while successfully reducing their energy bills or showcase the immediate benefits of energy-efficient practices.

- **Communication:** The materials and means used to ensure your message reaches the right target. You can utilise printed materials, make use of blogs, radio, billboards, local newspapers, digital campaigns and promotion during special events etc. Remember that not all target audiences will be reached by the same means. **Young people** may be easily reached through the internet and social media. To inform the **elderly**, connect via in-person approaches, phone calls or using trusted figures in the community; moreover, it is important for them that you use larger fonts or visuals for better understanding. **Minorities and immigrants** with different languages may need translated and culturally adapted materials, especially for technical vocabulary.

- **Timeline:** The best moment to start and run your campaign according to the objective and target audience. For example, a campaign to promote a service of financial support addressing winter energy poverty should start 3-4 months before the temperature significantly decreases in order to ensure there is enough time not only for people to reach out but also to identify the beneficiaries and release the financial aid. Moreover, if you aim to address a target population of workers, the message should be channelled in hours when they are responsive to the specific means of communication.

- **Who is running the campaign?** When addressing domestic energy, the actors running the campaign (either institutional, regional or non-governmental) may influence the perception of the message. Understanding the level of responsiveness of the target group is key.

- **Language and tone:** Generally, simple, jargon-free, empathetic, non-technical language is needed to ensure that everyone can understand.

To make energy poverty more **visible** and **relatable** in daily life, it may be worth linking the campaign to broader themes like the environment, climate, housing and social issues in case the target group is already connected to these topics.

Tailoring storytelling techniques can help establish an **emotional link** and facilitate positive engagement with the target audience. Using visual tools can also become an effective way of promoting the identification of new solutions and involving citizens in the implementation process. Local celebrities or influencers can enhance recognition if managed thoughtfully, but assessing their effectiveness, credibility and reputational risk is essential.

INSPIRATIONAL EXAMPLES

- Wellbased (EU Horizon 2020 project)
- Cold at Home
- Powerful Encounters: picturing an end to energy poverty - A photo exhibition by Friends of the Earth Europe raising awareness about energy poverty across Europe and the actions being taken to address it

Inspirational example: Energy fairy tale for nursery school children - inspired from a true case developed in Hungary and replicated in Denmark

Target group: Nursery and primary school children in specific neighbourhoods identified as energy poor.

Objective:

- Raise awareness among children about the importance of saving energy through interactive and playful activities to facilitate their support at home.
- Develop an entertaining and educational content to entertain children of vulnerable families while the parents are engaged in meetings with intermediaries.

Communication means:

- Verbal face-to-face storytelling and interactive games; creative drawing exercises.

Timeline:

- 45-minute preparatory sessions for teachers on how to execute and replicate the activities.
- Two winter visits to the classrooms, each lasting 60 minutes.

Preparation time: 2 hours

Who is running the campaign: Civil Society Organisations (NGOs)

Language and tone: simple, easy to understand, playful and engaging storytelling

Reach: XX children under 8 years old

Experts involved: 2

Story used to support the action: "Once upon a time, in a quiet little village surrounded by mountains and forests, there stood a lonely old house. It was always very cold inside, no matter how brightly the sun shone. The windows shivered and the wind would sneak through the cracks under the doors and windows, making the house even colder. One day, the nursery school children from the village went on a field trip and passed by the old house. They noticed how cold it was – the windows were frosty and the cold wind whistled through the gaps. The children felt sorry for the house and decided to help turn it into a warm and welcoming home. The first thing they did was make some warm clothes for the house. They knitted a big, cosy scarf and a snug hat. Carefully, they wrapped the scarf around the house and placed the hat on its roof, hoping to keep it warm and protect it from the chilly air. But the children didn't stop there. They climbed up to the roof and installed shiny solar panels.

These magical panels absorbed the sun's rays and turned them into warm, radiant energy which spread throughout the house. Next, they added a wonderful gadget – a heat pump that drew warmth from deep underground. The heat pump worked tirelessly, pumping heat into every corner of the house. As the warmth filled the house, it sighed with relief, feeling the cold finally leave its walls. The once lonely house was now full of warmth and happiness. Its windows sparkled with joy and a gentle, warm air filled every room. From that day on, the house was no longer cold. It welcomed everyone who passed by with open arms. Families, children and travellers came to play, relax and recharge in its cosy rooms and the house was always happy to have them. And so the lonely old house, now warm and full of life, became the heart of the village, a place where everyone felt at home."

BEHAVIOURAL CHANGE

Behavioural change actions are developed to study the conduct and decision-making process of individuals and groups in specific settings and define what can be done to influence their activities to promote a change (if needed). This action can be highly impactful but it is important to be aware of the complexity behind it. Working on the behaviour of people is tough and requires a wide set of skills. Moreover, there are elements such as **trust** that significantly impact the results and may require a long time to be developed. Often relying on a combination of experts and local stakeholders who are already established and connected is the way to go. When addressing sensitive social contexts, it is key to use **empathy** and be aware that people are already making many sacrifices to cope with complex situations. Once the baseline behaviours and reasoning behind it are understood, it is possible to design interventions such as nudges, boosts or restructuring regulations and incentives.

While behavioural barriers specific to energy-poor households have already been extensively researched, such as limited access to information, financial constraints and habitual energy consumption patterns, applying a nudging approach needs to identify **behavioural triggers** and **decision-making biases** that can be leveraged to promote the improvement of the wellbeing of vulnerable consumers.

At first, make sure that the behaviour you want to encourage in your target group of vulnerable consumers is clear (e.g. close curtains to protect from summer heat waves or introduce new energy-efficient practices). Then, identify the nudge/boost you want to use (e.g. suggesting an alternative or enabling social comparisons) and design how you want it to be delivered (e.g. educational material, digital interface, in-person events etc.). It is worth first performing a test of the efficacy of the nudge. In this case, you can randomly create two experimental groups or more; one will receive the intervention while the other will not. In this way, measuring the real effectiveness and change induced is possible. At the end of the test, you can either proceed to scale up the action or implement some corrective task (if needed) and then move on to either testing again (if the changes are consistent and you are still dubious about their possible effectiveness) or full-scale implementation (in case of a small correction).

As detailed in the previous step, to increase success, keep in mind some key information coming from the profiling of your target audience. For example, it is important to ensure the message is channelled in appropriate, easy-to-understand language, possibly integrated with visuals. The message should be accessible to the target group. For this, factors such as the right time of delivery, the season, the tool etc. may significantly change the effect produced, as mentioned for the awareness campaign actions.

Different approaches can be suitable according to the specific behaviour, but they can present some **contraindications** when used with vulnerable consumers. To evaluate your best approach, make sure you always put yourself in the shoes of your target group, using the information collected in the profiling.

Table 4: Example of nudges and their possible effect on vulnerable consumers

NUDGE	DESCRIPTION	NOTE
Reminding of consequences	Prompt users to consider the consequences of their actions, such as increasing thermostat temperatures or the air conditioning, by highlighting the extra costs incurred, projected monthly or annually.	Vulnerable consumers may be already tense and extremely conscious about their expenditure and self-limiting themselves, jeopardising their wellbeing. Such an intervention may not produce the effect desired and affect their health condition.
Feedback & awareness	Use direct feedback, such as smart meters or mobile apps, and indirect feedback, like usage reports, to help consumers understand their energy consumption. Comparisons with similar households can motivate conservation and encourage behavioural change.	Knowing the consumption of different tools may help them improve their condition. However, the risk is the same as mentioned above. Moreover, comparisons with similar households should be treated carefully in order to avoid giving the feeling of pointing the finger at someone.
Changing default settings	When making a decision, people often stick to the default provided, as it requires the minimum effort. Technologies can be pre-installed with default settings. Turn energy-friendly operational settings of devices (thermostat, air conditioning equipment) into defaults, to save the user from the "burden" of learning what is appropriate and what is not.	Default settings may be useful in some cases but it is important to take into consideration the specific condition of some vulnerable consumers. Elderly, people with disabilities etc. may require different settings to guarantee their health and wellbeing.
Enabling social comparison	Facilitate comparisons with peers, friends and neighbours through various means, including printed materials, online platforms and dynamic query response systems. Social norms and peer comparisons can motivate conservation by encouraging conformity, reinforcing behaviours and maintaining a positive self-image. Showing households their usage compared to average neighbours provides a salient signal to reduce energy.	Showing the results that can be achieved in a similar context can be an effective nudge. However, it is important to set the right framework, choose positive drivers and especially avoid creating social stigma.
Social influence, goal setting & commitment	Encourage users to commit formally to reducing their energy consumption, often in exchange for non-monetary rewards, leveraging social influence and goal-setting strategies.	As for other nudges, it is always important to make sure that this behavioural change is not jeopardising wellbeing for a reduction in costs or consumption in order to obtain other benefits.

Inspirational example: inspired by literature and adapted to the energy poverty context

Target group: Vulnerable consumers in social housing

Objective:
- Understand if the different conditions of the energy poor in the social housing (similar dwelling conditions) are due to different behaviours.
- Identify positive behavioural factors.
- Promote replication of similar behaviours to peers.

Sensitive tasks:
- Assessment of behavioural factors, doer/not-doer avoiding stigmatisation and pointing fingers.
- Design a campaign suitable for the context (e.g. active engagement through gamification).

Type of nudging:
- Social influence (indirect through the use of concrete positive behaviours identified in the community).
- Feedback and awareness (understanding the impact of the behaviour on the wellbeing and general conditions).

Timeline:
- 2-3 months for assessment of behaviours and identification of the positive deviant.
- 2 months for design and realisation of the interface for the engagement through an application.
- 1 month for promotion of the tool and community engagement.

Key stakeholders: Administration of the social housing, social services

Reach: XX households

Expert involved: X on the behavioural change analysis.

INSPIRATIONAL EXAMPLES

- Energy Cat
- Mobistyle
- Barcelona for climate
- NUDGE European project
- IEA Users TCP Task on Hard-To-Reach Energy Users

ONE-STOP SHOPS

One-stop shops (OSS) are an emerging approach that can help to overcome the different barriers faced by vulnerable households. Acting as intermediaries between various stakeholders, these hubs offer simplified and effective solutions by connecting experts, policies, and resources. The spectrum of potential support is diverse, including identifying and offering advice on energy efficiency measures, drafting renovation roadmaps, facilitating funding applications, supporting a deeper understanding of utility bills, finding suitable renovation companies, coordinating the renovation process on behalf of the homeowner and many more.

Local authorities play a crucial role in the implementation of OSS projects. They are usually recognized by the citizens and local stakeholders as trustworthy entities and can often provide resources to ensure the project's success.

One-stop shops or advice points are emerging as a fairly common tool with which to support citizens on different topics. However, there are some points to consider when aiming specifically at vulnerable consumers:

Table 5: Key elements to take into consideration when developing a OSS and the how to customize them for vulnerable consumers

ELEMENT	DESCRIPTION	VULNERABLE CONSUMERS PERSPECTIVE
Format	OSS can be physical, digital or hybrid. Moreover, physical OSS can be in a fixed location or on a mobile unit shared among different neighbourhoods or towns/cities.	When choosing the format for the OSS, it is key to keep in mind the characteristics of your target audience. A digital OSS may not be the best option if you are aiming to address elderly people with low digital skills. For physical OSS, even the working hours may affect the success of the action. If you are aiming to address working families or single parents, it is important to take into consideration the possibility that they may need additional opening hours in which to access the service. Similar aspects should be considered about the chosen location of the service. Placing it near schools, health services, public roads, supermarkets etc. may be a key opportunity to engage citizens. Digital OSS need to be designed in a user-friendly way. It is worth testing the tool before releasing it to make sure the information is really accessible to the target audience.
	Universal OSS or dedicated	In some cases, it is worthwhile integrating the service with other established advice tools, either internal or provided by other stakeholders (e.g. energy agency, social services, financial institutions etc.). To evaluate this option, refer to the information you have available about your target group and consider if they are already engaging with such realities, in which case it may be worth considering establishing a synergistic line of support with other stakeholders.
Type of service provided	OSS can integrate different services: initial consultation and advice on energy efficiency, home energy audit, technical assessment, simulations of bills with different providers, impact of energy-saving renovations, advice on access to financial services etc.	When addressing energy poverty, it is likely that the vulnerable consumers do not have a clear idea of what their options are and are mainly entering the OSS asking for general help to overcome their challenges. It is key to make sure the staff available is properly trained: ▸ to provide an overall picture and ask the right questions to give the best advice and either provide the technical support directly or be able to give them the best reference for their case ▸ to emotionally face the difficult situation vulnerable consumers may face without feeling overwhelmed by the condition ▸ to proactively establish and maintain contact with vulnerable households to ensure that the support is effective For this reason, specific training of the OSS operator is key (see the section on other types of actions: capacity building).

ELEMENT	DESCRIPTION	VULNERABLE CONSUMERS PERSPECTIVE
	Internal or external	OSS can be managed internally with a probable benefit as regards operational costs, but need to be evaluated if the staff require capacity building to serve energy-poor people. They can also be outsourced through a procurement process; in this case, it is important to establish specific terms of reference, making sure that the proper contractor is used.
	Integrated with cross-cutting topics	OSS can also be the key hub to provide multiple types of services, not only hints and advice but also the direct connection with other opportunities such as financial measures. In this case, make sure that the process from the first engagement with the service to the provision of the measure is clear and transparent.
Human resources available	Physical and digital OSS where it is foreseen that a direct exchange with experts requires allocated human resources to keep it working.	Selecting the best people to work at the OSS may be key for the success of the whole action, especially when engaging with vulnerable consumers. It may be worthwhile to review the stakeholder maps and engage with civil society organisations, social services or local citizens who are already well known by the target group and with whom they have developed a trusting relationship. In this case, make sure you include training for the operators in your implementation to provide all the technical information. In cases where detailed technical knowledge is needed (e.g. when advising on deep renovation measures), it is key to equip them with social skills to spot and understand the different cases of energy poverty but to be ready to ask for expert advice to offer an appropriate solution.
Awareness raising	To guarantee the success of the service, it is important that the target audience is informed about this possibility and the type of support they can receive.	Refer to the section on awareness campaigns for a specific insight into how to address your target group specifically.
ELEMENT	**DESCRIPTION**	**VULNERABLE CONSUMERS PERSPECTIVE**
Collect new information	OSS often offer the opportunity to better understand your context and the vulnerable consumers' needs.	As mentioned in the diagnosis report, it is key to keep in mind that every action is part of a circle and to give the opportunity to get a greater insight into the local context. OSS can be a good opportunity to collect additional information from the target group on elements that were not clear before. Moreover, it is a chance to overcome some data protection restrictions with informed consent to process their information. However, always bear in mind that you are collecting information from a sample of people that are already engaged so you should treat the collected data carefully.

INSPIRATIONAL EXAMPLES

- Hauts-de-France Pass Rénovation
- Transition Point: a mobile OSS running on a renewed maritime shipping container, Portugal.
- Better Homes
- Opengela
- Barcelona Energy Advice Points, Santa Coloma de Gramanet Energy Poverty identification point, Sant Adrià de Besòs energy poverty advice points or Getafe's Healthy Homes Office

Inspirational example: Transition Point NEXT2U - inspired from a true case from Protugal

Target group: General population and households in energy poverty in four municipalities in Portugal

Objective:

- Transform a maritime container into an office that welcomes citizens, replicating a previous pilot project.
- Development of a mobile one-stop shop dedicated to the alleviation of energy poverty through general energy efficiency advice, support with energy bills, free home energy audits and access to national funding.
- Recruitment of auditors and agents/technicians from the local population, training in basic concepts of energy consumption, energy bills, residential equipment, efficient energy practices, renewable energy, energy certificates and labels, and support for the implementation of energy efficiency measures.
- Support the general population and specifically the energy poor to access existing national funding opportunities.
- Free home energy audits.
- Creation of a digital tool for information and free personalised advice scheduling.

Communication means: Billboards, internet campaign on websites of municipalities/civil parishes, local newspapers, social media, word of mouth.

Timeline:

- September 2023 until June 2024.
- The Transition Point NEXT2U was present in each location for a duration of 6 weeks.

Who is running the action: National Energy and Environment Agencies Network

Language and tone: Clear, simple, non-technical language

Reach: 651 households supported by the one-stop shop (of these, 58% report always or frequently feeling cold at home in winter - around 378 households - and 47% report always or frequently feeling too hot at home in summer - around 306 households) and 261 energy audits in 6 months.

Experts necessary: 4 for preparation and + 4 (3 agents/technicians + 1 auditor) for the One-Stop Shop

ENERGY COMMUNITIES

Energy communities can be an effective means of restructuring our energy systems, by empowering citizens to drive the energy transition locally and directly benefit from better energy efficiency, lower bills, reduced energy poverty and green job opportunities. Different actors can start an energy community; however, municipalities play a crucial role in supporting these initiatives, especially in addressing energy poverty. They can act as collaboration partners, shareholders, network actors, investors or buyers of the energy produced. By becoming part of the energy community, municipalities can better understand and address the challenges faced by energy-poor households. Financial backing from municipalities – through purchasing shares, providing loans and grants or offering guarantees – enhances public trust and ensures that projects which benefit vulnerable households are prioritised.

Municipalities can also **endorse** and **provide** visibility to energy communities, offer capacity-building support, small grants, expert advice and cover pre-development costs. Moreover, municipalities often own large buildings suitable for PV installations and can provide roof space, ensuring that energy-poor households benefit from renewable energy solutions. Additionally, municipalities manage planning and approval procedures for renewable energy facilities, aiding communities through administrative processes. Finally, municipalities often provide direct support to vulnerable groups or collaborate with social partners who have already been identified and who have built a trusted relationship with these households.

To establish energy communities, there are different elements to take into consideration, such as the **engagement** with the broader community, the **legal** form, the **technical** and **technological** structure, the **financial** and **operational** model and the **licensing** process. To tackle energy poverty with an energy community, vulnerable consumers' needs must be valued from the start and at every moment, not only as an afterthought at the end of the implementation stage. Energy-poor households will often need specific provisions to join the energy community, such as reduced or non-existent investment and operational costs, and the identification, engagement and selection criteria and approaches need to be well defined. The profiling exercise described in Step 2 is key to design the target group involvement.

There are several key aspects for you to embrace according to the different stages of development of the energy community:

Table 6: How to take into account vulnerable consumers in the different stages

STAGE OF DEVELOPMENT	INVOLVEMENT OF VULNERABLE CONSUMERS
Engaging the community	**Foster participation** from all community members, especially those in vulnerable situations. Implement participatory and transparent decision-making processes that allow energy poor to have a voice in planning and executing energy projects. This fosters ownership and ensures the projects meet the community's needs. Use the support of key stakeholders that can facilitate the establishment of a trusted relationship. Bear in mind that this is the foundation of all your work, so it is worth investing time and carefully developing the relationship, for instance by participating in community events, organising public sessions and promoting co-creation workshops.
	Forge partnerships with stakeholders from various sectors, including government agencies, utilities, businesses, academic institutions, community organisations and grassroots initiatives. Cultivate relationships based on trust and transparency to build a strong foundation for inclusive energy initiatives whose main goal is to benefit the local community. Engage with other like-minded community-orientated projects, such as repair cafés or urban agriculture. Introducing new stakeholders, especially from the private and public sector, may result in tense moments. It is worth starting a dialogue as soon as possible and providing clear boundaries for the role of each actor.

STAGE OF DEVELOPMENT	INVOLVEMENT OF VULNERABLE CONSUMERS
Defining the legal structure and the governance	When choosing a legal structure, **consider community preferences,** needs, engagement levels and national regulations. Factors such as the minimum number of members, registration procedures and the administrative burden, liability and required capital are crucial. In countries with complex cooperative establishment processes, starting with simpler legal forms such as associations and clubs and progressing towards forming a cooperative later on can be an option. It might also be possible to adapt an already existing local organisation to host the energy community, saving the time and money required to form a new one and taking advantage of an existing structure. Legal terminology may be a barrier to engaging with vulnerable consumers; make sure they are supported by the proper intermediary who is able to facilitate the understanding of the different elements and make them feel comfortable with the overall aspects of the project.
	A clear statute outlines the organisation's purpose, governance and rules, ensuring transparency and fairness. Explicitly address energy poverty in the statute from the project's inception, involving vulnerable households in decision-making and goal-setting. Ensure energy-poor residents are represented in governance structures by reserving seats on boards or committees for representatives from vulnerable groups. Ensure that all members have the right to vote on relevant energy community matters for democratic decision-making, for instance through a one-member-one-vote mechanism, and that energy-poor members are not discriminated against.
Service definition	Make sure that you engage the community and vulnerable consumers in the identification of the best technology that fits their needs and is easy for them to manage. Take your time to explain the choices made and why you believe they are the best option for the community. In some cases, it is worth integrating multiple sectors, such as electricity, heat and transport, in order to maximise the impact. Often, energy communities start by generating their own renewable energy (e.g. through wind farms or solar panels), and the optimal technology will depend on the location and characteristics of the project.
	Consider local suppliers to promote other cross-cutting benefits for the community. In some cases, you can directly employ the vulnerable consumer in the delivery of the service (if suitable).
Financial and operational model	Implement measures to make participation in the energy community affordable for all. This could include reducing membership quotas or providing financing options such as securing dividends to cover the costs for energy-poor members. Engage the vulnerable consumers to explain the different financial approaches available and discuss with them what is more accessible. Equity financing, where the community is self-funded, provides more control and ownership, which can ensure that the needs of vulnerable households are prioritised. Conversely, debt financing from external parties may come with additional requirements and have an influence on decision-making, potentially impacting vulnerable households negatively.
Evaluation	Evaluate the approaches of multiple sectors to leverage on combined incentives (such as wall box charging stations for electric vehicles or car-sharing schemes in the rural parts of the EU.)

Example of an energy community – the case of an inclusive Renewable Energy Community pilot that is ready to be scaled up

Objective: Setting up one of the first citizen-led and inclusive renewable energy communities in Portugal, tackling energy poverty and promoting energy democracy. The Telheiras Renewable Energy Community is promoted by the Local Partnership of Telheiras - a network of local non-profit organisations - and the Lumiar Parish Council - the sub-municipal authority responsible for this territory in Lisbon - aiming to foster a just and sustainable energy transition. It provides free advice on energy efficiency and aims to invest, produce and share renewable energy with its members. The first solar photovoltaic system of the energy community is already installed in a public building managed by the Lumiar Parish Council, with the generated energy also being shared with 16 local families of which 3 are energy-poor. Future expansion is planned with the installation of more systems and the participation of more local families, companies and associations.

- **Engaging the community:** The project started from a collection of ideas from the local population and from a follow-up brainstorming session. An open call for volunteers to integrate an energy community working group took place, with local residents signing up to develop the idea. A regular presence in local events and public sessions was ensured. The project was widely disseminated in local and national media. An informative guide was shared with potential energy community members and all materials were placed in open access. Other dissemination materials included flyers, posters and social media publications. Word of mouth also played a prominent role. Energy-poor households were identified and engaged by the Parish Council social services and other social partners in the target territory, presenting the energy community as an opportunity to save on energy bills.

- **Defining the legal structure and governance:** The energy community's legal structure is a non-profit association, where all the energy community members are associates and have the right to vote in decision-making during general assemblies. This includes vulnerable households as active members. The energy community has its own internal regulations to ensure its ongoing operation. A coordination team is nominated each year during the general assembly to take care of the day-to-day management of the energy community; all members can propose themselves for the coordination team. Thus, the proposed structure foresees a direct engagement of the vulnerable consumers in the community.

Timeline: October 2022 – July 2023 (planning stage)

Who is running the action: Local association manages the energy community in direct collaboration with the Local Partnership of Telheiras (network of non-profit organisations active since 2013) and the Lumiar Parish Council. Technical and scientific support was provided by Coopérnico (renewable energy cooperative) and by CENSE NOVA-FCT (university research centre).

Technology and tools definition: Portugal has ample solar resources, so the choice of solar photovoltaic technology was highly suitable for an urban area such as Lisbon. Installing solar PV on rooftops avoids using other useful areas. Public buildings were selected since the decision to install solar

panels is the responsibility of the local government; these buildings also have suitable areas and rooftop orientation. For the pilot, a small rooftop was selected on which to install a solar PV system with 7.15 kWp to test the energy community approach before scaling up.

Financial model: To maintain their independence and ownership of energy production assets, energy communities often try to raise money internally for their investment and operational needs. The Telheiras Renewable Energy Community collects the investment for the solar PV system from its members, including the local government and families. Operational costs are covered through an annual fee collected from the members. Energy-poor households do not need to invest to join the energy community, since the investment is paid by the local government and the other energy community members, and they benefit from a reduced annual fee.

Reach: 17 energy community members (1 civil parish, 13 local families, 3 energy-poor families) + hundreds of citizens at local festivals and events until July 2023 (the project is still ongoing and ready to be scaled up).

Key stakeholders involved: 4 stakeholders (local partnership between Telheiras, Lumiar Parish Council, Coopérnico, CENSE NOVA-FCT).

INSPIRATIONAL EXAMPLES

- Sun4all
- Telheiras Renewable Energy Community, Lumiar Parish Council, Portugal
- Coopérnico
- Brupower
- Energía Bonita

HOME RENOVATION AND ENERGY EFFICIENCY IMPROVEMENT

Poor energy efficiency of the building stock is a central driver of energy poverty. Energy-poor individuals often reside in **poorly performing buildings** and lack the means to finance renovations. Soaring housing and rental costs, declining investment in public housing and the persistently low energy efficiency and quality of properties, leading to high energy consumption, are some of the main issues. Energy-poor households often **lack technical knowledge** and the financial means to identify and implement the best solutions to renovate their home. Furthermore, there is a lack of companies available to perform the works and material costs may be high.

Addressing home renovation may be complex for local governments as this aspect mainly influences the **private arena**. However, it is key to get a picture of the different scenarios energy-poor households may face when new rules and regulations are introduced to promote renovation. Moreover, similar considerations may be considered applicable when the local governments promote urban improvement and requalification of areas. The effect of these types of rehabilitation on the local market may be connected with those of home renovation.

When discussing home renovation and energy efficiency improvement, different aspects must be considered, such as the **ownership of the building**, the **type of building** (single house or multiple occupation), the **age** of construction and the **location** restrictions (e.g. historical areas and heritage buildings). In each case, there are different challenges and opportunities to consider.

Concerning the ownership of the building, we find that some vulnerable consumers own their own house, but they often rent from other private individuals, from small or large companies or from public entities. The main challenge **homeowners** face in their building is often the lack of general information, ranging from the legal requirements to the long-term value of the renovation and to the financial subsidies available to execute the work. On the other hand, energy-poor **tenants** may find themselves in a difficult situation due to power imbalances with landlords, and improving the building fabric may increase the rental cost and risk of "**renoviction**" (eviction following a renovation). Additionally, many of these households already have low energy consumption levels and the driver for the renovation is not so much an energy cost reduction but more a wellbeing increase through e.g. better air quality or improved thermal comfort. The **split incentive** or landlord-tenant dilemma has been well discussed. It addresses the condition in which one party (the owner) is not willing to invest in an improvement that directly benefits someone else (the tenant). For instance, if landlords invest in building insulation, they will not benefit directly from the improved thermal comfort, nor from the reduced energy bills; on the other hand, tenants are not willing to invest in improving the building as they are not the owner and might move out in the following years.

As you may have noticed in the different notes, implementing home renovation is facilitated if strongly combined with other actions such as awareness campaigns, one-stop shops, financial measures etc. Consider this when developing the detailed plan and starting the implementation.

Generally, there is no simple solution for all the cases in this context. Still, during the implementation, it is important to continuously embrace the vulnerable consumers' perspective and try to foresee the possible backlash from the proposed approach. Below is a list of some guiding reasoning to take into consideration:

Table 7: Critical points to take into consideration when developing a renovation action for vulnerable consumers

FACTORS	CRITICAL REASONING
Identification of beneficiaries	When reaching the moment to specifically identify the final beneficiaries of the building renovation intervention, it is important to make sure you have a complete picture of the energy poverty condition in the area. If the level of detail reached during the diagnosis was based on the information of the energy efficiency of the houses or similar combined with some social parameters, it is now worth entering into more detail and collecting information about the ownership of the buildings/flats, the legal structure (if there is a building manager etc.) and other key elements that need to be taken into consideration.
Engagement of beneficiaries	In the case of mixed ownership, it is worth engaging all the different actors and understanding their perspective. There may be some cases in which you face conflicts. It is important to either train your staff to facilitate discussion in these situations or to rely on the expertise of local CSOs/NGOs or an intermediary.
Energy audit	To specifically identify the houses to be prioritised for renovation interventions in the area selected, energy audits might be needed. This initial step identifies areas for improvement and suggests cost-effective measures to enhance energy efficiency. However, finding the right professional and paying for their services may be a burden for vulnerable consumers. It is worthwhile evaluating some financial support to engage certified energy auditors and possibly to activate an energy desk or one-stop shop to provide information.
Motivation of residents	Residents may have difficulties in understanding the real cost-benefit relation of an expensive renovation and may be sceptical about the possible incentives provided. Make sure you highlight the range of benefits, including cost savings, enhanced thermal comfort, improved overall wellbeing, better health outcomes, reduced dependence on fossil fuels, energy independence and a minimised environmental impact. Also include a consideration of accessibility and general safety improvements, especially when the vulnerable consumers being addressed present some specific need (e.g. people with mobility impairment, the elderly etc.).
Funding and expertise	Municipalities can offer funding and expertise or collaborate with local energy providers to facilitate renovations. Work with energy advisors to provide suitable energy-saving measures and technologies, prioritising cost-effectiveness and financial feasibility. For energy-poor households, a step-by-step approach to minimise financial strain may be convenient; however, do not lose sight of the goal of significantly improving the building's energy performance through a well-defined long-term package of renovation measures. When dealing with tenants in energy poverty make sure that you combine the financial measures with regulations that prevent the possibility of the owner increasing the rent and/or forcing the tenant out of the house in light of the increased value of the building.
Legal component	In each situation, it is important to keep a balanced approach in order to make sure you address the needs of all the actors involved. Tenants may fear an increase in rent; owners may not see the benefit of addressing the issue and be scared about binding themselves to long-term contracts. Establishing a dialogue from the outset reduces the risk of misunderstandings and facilitates the implementation of legal agreements that protect both parties.
Temporary accommodation	Finding temporary accommodation during renovations can be a significant barrier. Consider innovative solutions - such as the Energiesprong principle - which allow for comprehensive, rapid renovations without residents needing to relocate.

Inspirational Example: The Urban Regeneration Programme of Barcelona

Target group: Vulnerable districts

Objective: The Urban Regeneration Programme of Barcelona (PRU) is a strategy of actions to improve the urban habitability conditions in neighbourhoods. It is a programme aimed at reducing vulnerabilities and improving the quality of life in the city, while reinforcing social resilience. It is a combined action: construction work, mediation, financial support, awareness and inspections. The programme includes the establishment of subsidy percentages for renovation.

Source: Municipal Institute of Urban Planning

Identification of beneficiaries: The criteria for selecting the areas in which action is to be taken from among the 73 neighbourhoods of the city of Barcelona derived from the Barcelona Urban Regeneration Programme (PRUB), a document that studies vulnerability by areas of the whole city. Subsidy thresholds that are taken into account, according to various indicators, are as follows:

- Structural and installation work thresholds. The reference indicators are the ones for housing blocks in a dilapidated, poor or deficient state.
- Accessibility-work thresholds. The reference indicators are the ones for buildings with 4 or more storeys without lifts.
- Energy-efficiency work thresholds. The reference indicators are the ones for buildings over 40 years old without renovation applications.
- Subsidy thresholds according to disposable income per capita.

Funding and expertise: Possibility of covering up to 100% of the renovation costs in specific situations of vulnerability. In these cases, the Next Generation fund covers a fraction of the costs and the municipality covers another fraction. The remaining amount (around 15%) is registered as a debt in the Real Estate Register and, after 30 years without a transfer of the property, the debt is cancelled.

Timeline: 2020 - ongoing.

Who is running the action: Municipality of Barcelona.

How many people reached: 32 ha of surface area, 24,660 inhabitants, 85 blocks/tower blocks of flats, 4,598 households, 39 commercial premises.

INSPIRATIONAL EXAMPLES

- Irish Warmer Homes Free home energy upgrades for homeowners who receive certain social welfare payments
- How to avoid "renoviction"
- 2nd Skin to avoid temporary accommodation

INCENTIVE REGULATIONS AND FINANCIAL MEASURES

Tailored subsidies and incentives can be an effective tool for energy poverty alleviation, given the limited resources available to the energy poor. Access to conventional financing is also challenging for these energy consumers because commercial banks perceive vulnerable clients as **high-risk borrowers**. Furthermore, households in energy poverty might be sceptical of taking out loans when they are already struggling to cover their daily expenses. There are still very few examples of financing mechanisms targeted specifically at energy-poor households in the EU.

Two components need to be considered when constructing a financing scheme: the **source of capital** and the **type of financing scheme**.

Regarding capital, this can originate from private and public sources. Among the public sources, they can derive from national budgets or programmes, municipal budgets or EU financing mechanisms (Cohesion Policy Fund, Recovery and Resilience Fund, European Structural and Investment Funds, ELENA – European Local Energy Assistance) or other programmes (Horizon 2020 programme, LIFE programme). Funding from these sources can be more advantageous as some sources of funding have budgets allocated specifically for projects to alleviate energy poverty and specifically target vulnerable consumers.

Regarding the types of **financing**, these can be divided into **non-repayable funds, debt financing** or **equity financing**. In the first category – the **non-repayable funds** – the capital is provided without the need for repayment. These schemes include grants, subsidies, tax incentives or energy efficiency obligations. On the other hand, **debt financing** offers loans with more advantages than traditional products. These can include soft loans, loans with low or zero interest, energy efficiency mortgages with extended repayment periods or on-bill and on-tax financing,

where the homeowner pays for the intervention with the energy savings resulting from the intervention. Energy performance contracts operate similarly and consist of an agreement for energy efficiency and renovation between the homeowner and a third-party company (usually an energy services company) where this party provides the initial capital for the interventions. **Equity financing**, such as crowdlending projects and cooperatives, involves community-led initiatives that incentivise collaboration and the raising of capital for renovation or energy efficiency projects.

There are advantages and disadvantages to consider in the implementation of each financing scheme:

Table 8: Advantages and disadvantages of financial instruments when addressing vulnerable consumers

FINANCING INSTRUMENT	ADVANTAGES	DISADVANTAGES
Non-repayable funds	These instruments are a good option for vulnerable consumers as they don't need to be repaid, thereby avoiding an additional financial burden. It's important to ensure that these instruments are available for a sufficient period and offer continuity. They can be prioritised during extreme situations, for example during extreme weather events.	These instruments often provide only partial coverage, requiring consumers to pay the remaining costs, which can be a limitation. Additionally, some programmes have complex and time-consuming application processes with multiple steps, creating barriers for vulnerable consumers. Furthermore, tax-related mechanisms may not be applicable to vulnerable consumers. Well-defined selection criteria must be in place so that the non-repayable funds are not misallocated.
Debt financing	These instruments are flexible and can be designed with special conditions for vulnerable consumers (for example, with longer repayment periods or lower monthly payments).	They require repayments, which can be a limitation. Additionally, some mechanisms are based on the amount of energy saved, which may not benefit or be applicable to vulnerable consumers whose energy consumption is already low. Increasing debt is often seen as a risky move by vulnerable households.
Equity financing	These are usually community-based and, therefore, may not involve traditional financing organisations, making them potentially more accessible and less bureaucratic than conventional schemes.	They may lack a sufficient budget to reach all the vulnerable population and to ensure continuity. Some interventions are not profitable and there is often no equity to distribute.

Once the source of capital and the type of financing schemes have been decided, there are other key elements to take into consideration to design effective financial measures: **accessibility, transparency and simplicity.**

- **Accessibility:** The financing scheme should be **effectively promoted** with tailored engagement strategies. It is also crucial to ensure that it remains available for an extended period so it reaches the most vulnerable population. **Timely planning** is also an important factor to consider. For instance, if a subsidy is intended for the winter, promotion should begin in the summer to ensure awareness and accessibility.

Moreover, a financing mechanism can result from the **synergies and/or collaboration** of several entities and stakeholders at multiple levels. Leveraging the resources and expertise of the different organisations is important for the success and impact of the mechanism among vulnerable consumers. Collaboratively, financing institutions, local investors, business associations, residents' associations, universities and R&D centres can create innovative financing methods that foster building renovation and promote the region's values and culture. For instance, if a

municipality is known for certain handicraft work, this industry can be involved in the process of renovation promoted by the scheme, thereby promoting the local market and preserving regional traditions.

- **Transparency:** The scheme needs to be founded in a set of regulations that **clearly** state the type of financing mechanism, the eligible types of interventions (e.g. insulation, heat pumps, windows), and the type of beneficiary that can apply (e.g. companies, homeowners, renters). The **type of language** used should be clear and unambiguous, ensuring that all parties involved in the renovation process understand the list of interventions, their requirements and the eligibility criteria. This is essential for building trust in the financing scheme and ensuring the target population understands and applies for it. Different target groups have **different specific needs**. Therefore, when creating a financing scheme, it is essential to address these differences to ensure it is **anti-discriminatory** and targets all the population. Thus, customised criteria can be implemented in schemes targeting the general population. For example, low-income households can be entitled to higher reimbursement rates in subsidy schemes, or the subsidy can be given before the intervention. Another option is to complement the existing schemes with specific ones for the vulnerable population and their specific needs.

- **Simplicity: A targeted financing scheme** will increase the chances of its success. This can be ensured by conducting initial studies addressing the initial state of the buildings and the characterisation of the population, as well as an ex-ante evaluation of the expected results. Financing schemes involving evaluation processes with extended periods, with a high number of steps or with excessive documentation requirements may be unappealing, especially for the energy-poor population. When designing the scheme, invest in a **simple application and evaluation process**, which also reduces transaction costs. Most financing schemes use online platforms, so when applying this format, consider having physical offices to aid vulnerable populations in filling out applications or having hotlines to address possible questions.

BONUS INFO: THE POVERTY PREMIUM

It can happen that people suffering a situation of vulnerability end up paying higher costs for goods and services compared to wealthier individuals. For example, some municipalities enhance tax breaks for renewables but those that already receive other tax exemptions due to their situation of vulnerability cannot apply and this results in a double penalty for vulnerable consumers. Vulnerable consumers may lack access to cheaper options, such as bulk buying or favourable credit, and may face additional costs like higher interest rates, expensive short-term loans or higher insurance premiums. They may also live in areas with fewer affordable services, leading to increased transportation or time costs. The poverty premium exacerbates the financial strain, making it harder for low-income individuals to escape poverty. It is key that municipalities trying to embrace the energy transition carefully consider how not to bring about such situations.

INSPIRATIONAL EXAMPLES

- ComAct financial model for energy-poor houses
- Gran Prestito scheme
- Partnership with local banks
- Vale Eficiencia – targeted at the population that benefits from a social electricity tariff
- Emerging financial instruments

Inspirational example: Dampoort Renovates

Objective: Provide a 30,000 euro grant to renovate the house and make it safer and more energy-efficient. The example is a mix of actions, addressing financial measures but at the same time overcoming some key challenges regarding how to carry out home renovations. In fact, the local government not only supported the design and implementation of the financial support, but also accompanied the beneficiaries in the selection of the best contractors and supervision of works.

Target group: Group of people called "Noodkopers" ("captive owners") who have purchased housing property because it was the cheaper option compared to renting. Their property was often poorly insulated and in poor condition.

Structure of the grant: The owner receives a grant of 30,000 euros to improve the dwelling and has to repay it only if the owner decides to sell or rent out the property.

Role of the local government: Facilitation of the initiation and of the screening process for the project, support with the identification of the beneficiaries.

Clear rules: The criteria for potential beneficiaries were defined and families with low incomes who lived in dwellings of substandard quality were eligible. To determine the families most in need, a scoring system including the Flemish Housing Code and a survey was developed. A framework for the renovation works as well as regulations and agreements were drafted.

Transparency on candidate selection: Potential candidates were invited to apply for the project and were ultimately selected based on the previously-defined selection criteria. Individual renovation plans were drafted and residents who were not selected gained access to further information programmes about housing premiums and other support measures.

Transparency of work contractors: A public tender was published and quotations collected from potential contractors. Group meetings were organised in which the candidates received status updates and exchanged experiences. As a side effect of the individual consultations and interviews with the candidates, problems beyond the scope of the project were discovered and tackled together with the project partners.

Support on the works: The renovation works were carried out and examined by the construction supervisor. If additional grants and/or premiums were applied for, Woonwinkel took care of the applications. Monthly meetings of residents allowed everyone to exchange experiences and provide updates on their progress. In order to help residents with their energy bills, tips on energy saving and suppliers were shared.

Who is running the action: Local governments.

Reach: Initially 10 households, but then scaled up.

OTHER TYPES OF ACTIONS

Addressing energy poverty relates to the **inclusion of the social aspect** within multiple aspects. Looking at the possible actions from this perspective, it is clear that there are many more activities that can be designed to tackle energy poverty. For example, **adaptation** measures, such as the greening of urban areas to avoid heat islands, may be designed to address vulnerable consumers. Innovative tools such as **artificial intelligence** can foster a deeper analysis of the factors and consequences influencing energy poverty, while allowing optimised management of local energy generation and consumption. Integrated **capacity building** and **vocational training** for municipal staff and social workers can include specific information on the target groups in vulnerable and energy poverty conditions. Naturally, the list of possible actions is not limited to the ones mentioned beforehand.

As for all the actions, it is important that you **imagine yourself in the position** of the target group you want to address (rely on the profiling done at Step 2).

Deploy efforts so that the target group can develop a **sense of ownership** of the action and be concretely and effectively involved in the implementation of key milestones where it is important to have them on board. For example, if you are developing adaptation measures, make sure that the area selected for the intervention is designed to also facilitate access for vulnerable consumers, such as ensuring that green spaces are safe for children and accessible to people with disabilities.

Take the opportunity to **collect additional information** and data on how the specific action is influencing the everyday life of vulnerable consumers and design specific measures to address their realities. For example, developing a new urban plan which involves the refurbishment of public spaces and services in disadvantageous areas may affect the market value of the area and result in unaffordability for vulnerable consumers (a process known as gentrification). Make sure that you collect information on the average rent and the presence of vulnerable consumers in the area in advance and estimate how this will affect their everyday life.

Inspirational example: Rete ASSIST capacity building approach

Objective: The Rete ASSIST non-profit association manages training courses of on-the-ground operators, either as volunteers or social (and technical) operators, in energy poverty and manages the national network of trained operators (the so-called energy tutors - TED).

- The training for the tutors has been built in order to ensure that they all have a common understanding of what energy poverty is, what the consequences are and how to identify the people in energy poverty and how to provide support for them.

Training needs: To design the training, it is important to make sure it addresses real needs. For smaller, homogeneous groups, qualitative gap analysis can be conducted through focused discussions or guided focus groups. If the target group is large and/or not homogeneous, then the gap analysis is more challenging and should be coupled with a target profiling activity in order to identify the gaps in relation to the different profiles. This can be done through a brief survey. Then a compulsory element of the training should be to address the common gaps of all participants while the target specific gaps may be included in the training but only as optional, either according to personal interests or with an entry test that, if passed, automatically unblocks the lessons.

Assessing the trainees: It is important to fit the training to the trainees. A training course addressing social operators will focus more on the energy aspects and less on the social aspects, while a course for energy market actors will focus more on the social, communication and empathy aspects of dealing with people in energy vulnerability. Also, the language and the format will vary; for example, the use of technical words should be avoided when addressing social operators or vulnerable consumers who may not understand all the implications of some specific definitions.

Define the content: Within this step, it is also important to evaluate how the topics should be best addressed, choosing between a theoretical and/or a practical approach and consequently identifying the best trainer for the topic. If a practical approach is considered most suitable, it might be very useful to also include in the training some live experiences, such as inviting operators who already work with energy-poor consumers.

Timeline: March 2022 – ongoing (the planning of the activities was carried out within the ASSIST project between 2017 and 2020)

Who is running the action: Rete ASSIST is a non-profit organisation managed by its members who are mainly experts on energy poverty. However, it works closely with its "PARTNERS" which are different stakeholders (municipalities, non-profit and charity associations, consumer associations etc.). All national stakeholders may ask to join as PARTNERS of Rete ASSIST.

How to deliver the training: The training is delivered mainly online through an online learning platform which has been customised with the visual identity of Rete ASSIST. The registration for the training platform and for the training resources is free and accessible to all people who are interested in taking part in the platform. Further to the online training, Rete ASSIST organises in-person training courses, especially for municipal staff.

Reach: At the moment, the number of trained people (called Domestic Energy Tutors - TED) at national level is over 200. A further 200 people are still taking the course and have not yet completed it. Once the training has been completely finished, the person receives the certificate as a TED and joins the national network of TEDs.

Sustainability: Rete ASSIST is working nowadays with numerous Italian municipalities to train their social operators and their staff (for example, the people working on an energy helpdesk or in an OSS).

INSPIRATIONAL EXAMPLES

- RETE ASSIST
- SMARTEN CITY
- DEVELOP INNOVATIVE ACTIONS

SUGGESTED ACTIVITIES FOR ALL ACTIONS

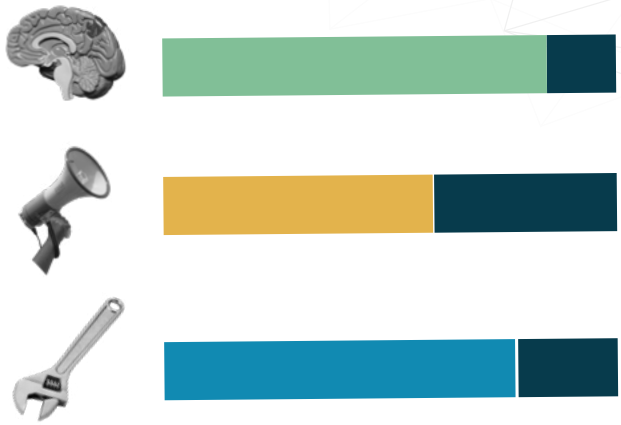
- Take your time to read the inputs provided and consider what the key elements in your selected actions are that make them specifically address the vulnerable consumers.
- Write down some key elements which the entire working group and the implementation partners should take into consideration to make sure you keep focusing on your target group.
- Review examples and success stories of different actions (looking either at your resources database or the EPAH ATLAS) and identify which specific elements they included to make sure vulnerable consumers were properly involved.

REVISIT AND RENEW

Once the implementation of the selected action has been completed, it is worth taking sufficient time to review the whole process from the diagnosis onwards and critically analyse the lessons learnt, the positive outcomes, the challenges faced, the unexpected negative elements and in general the overall performance. Taking the time to write down notes on the action and formalize and **impact assessment** is useful to build knowledge that can be shared with other colleagues or peers in other countries so that they do not start from scratch, but build on your own success.

It is important that the entire internal working group works on assessing their performance. It is also advisable to rely on external resources that were not deeply involved in the whole process so they can provide an unbiased and transparent perspective.

STEP 6 – EVALUATING THE IMPACT



Objective: Evaluate the actions to inform future strategies

Throughout the implementation, it is important to perform continuous monitoring and evaluations. These moments give an opportunity to check how the actions are developing and, if needed, to integrate possible corrective actions into the plan to improve performance. However, at the end of the whole action, it is important to take the proper time to comprehensively evaluate the **impact** of the three phases: Diagnosis, Planning and Implementation.

Performing an *impact assessment* is a crucial step as it helps understand the broader implications of the actions. Impact assessments provide a structured approach to measuring not just the immediate outcomes, but also the **long-term effects** of a project on stakeholders, the environment and the wider community. This evaluation allows you to **update the information** collected at the start of the whole process and to take informed decisions for future developments.

The value of an impact assessment is greatly affected by the quality of information and data collected along the whole process; for this reason, we have stressed several times that you should maintain the traceability of all the key milestones. By identifying both the **successes** and **shortcomings** of a project, you can collect key learning lessons, improve future planning and refine strategies.

Impact assessments also enhance transparency and accountability, demonstrating to stakeholders that the work is done and that the time and resources devoted to the action have indeed been successful. It is important to involve the broader group of stakeholders (including beneficiaries and target groups) and to collect their feedback to make sure all the key points are present and aligned.

It is advisable to ask external evaluators to participate in the impact assessment since they can be impartial and may collect information and evaluate the situation from a different perspective. This means that their involvement should also be properly budgeted and considered a wise use of time. In case of a lack of financial capacity to outsource the evaluation, try to involve other colleagues to bring their new perspective.

There are different ways in which to perform an impact assessment. Below, we would like to underline some criteria that can be used:

Table 9: Impact evaluation criteria

CRITERIA	DEFINITION	WHICH PHASE IS THE MOST APPROPRIATE	ENERGY POVERTY PERSPECTIVE
Relevance	How the actions suitably addressed the energy poverty challenge.	Establish a link between the diagnosis, definition, planning, vision, impact, implementation and results.	Evaluate if the energy poverty aspect was always at the centre throughout the whole process and if the reasoning was developed in a strong and consistent way. Also provide a general review on the key indicators selected (from planning to impact) and if they were achieved.
Effectiveness	To which extent the objective, where achieved, refers mainly to the indicators selected.	Focus on the indicators identified in the diagnosis and their baseline value as updated from the planning with the objective value set.	Analyse quantitatively if the indicators selected were affected, if they changed as expected and as much as expected. If this is not the case, include a critical evaluation of the reasoning behind such results.
Efficiency	Evaluate the economic term and whether the resources where effectively used.	Focus on the budget allocated in the planning and rely on the financial plan (Step 3) and consecutive monitoring of progress.	Checking the allocation of resources helps to evaluate if the budget was properly estimated, if there were additional costs and variations and can generally improve future planning.
	Evaluate the timeframe.	Part of the efficiency also refers to the capacity to respect the Gantt and working plan. Refer to planning – when and how to develop the plan at Step 2, plus the monitoring.	Some energy poverty actions need to be developed in a strictly timely manner (e.g. winter or summer preparedness.) Check if the plans developed were respected during the implementation and, if this is not the case, identify the reasons behind such a change and propose possible corrective actions for future projects.
Broader consequences	Focus on a broader analysis of both positive and negative changes that were directly or indirectly produced.	Take as a reference the energy poverty definition in the diagnosis and the planning vision.	This qualitative analysis examines how vulnerable consumers were influenced by the action and whether any unforeseen negative consequences occurred (e.g., a neighbourhood rehabilitation may have benefited some but forced others to move due to increased costs). Recognizing unintended consequences is crucial for future planning and learning lessons
Coverage	The extent to which the target group was addressed.	Refer to the energy poverty definition in the diagnosis and the specific definition in the planning and in the implementation.	From the broader definition of energy poverty developed in the diagnosis, it may be that the planning selected working with and prioritising a specific target group. In the impact report, it is key to report how the specific target group was reached and if these specific actions also indirectly affected other vulnerable consumers at all and/or if they can be replicated when addressing different groups.

CRITERIA	DEFINITION	WHICH PHASE IS THE MOST APPROPRIATE	ENERGY POVERTY PERSPECTIVE
Coordination	Refer to the effectiveness of the collaboration between internal and external stakeholders.	It refers to the evaluation of the internal working group and stakeholder analysis from diagnosis and planning.	Energy poverty is better addressed when working in strong collaboration with multiple stakeholders. This is a moment to reflect on how the collaboration went and to assess the strength and weakness of the different actors involved.
Connectedness	How the actions were synergistic/influenced other actions at local level.	A reference point should be the established connections with current programmes in other departments (e.g. urban department, energy and environmental department working on CO_2 reduction etc.).	Working on energy poverty can produce an effect on other key objectives of the municipality (e.g. facilitating energy efficiency measures for vulnerable consumers can support the municipality in reaching their climate objective). It is worth underlining the interconnection of the actions. In some cases, there can be a negative impact to acknowledge (e.g. helping vulnerable consumers to afford energy may result in an increase in their consumption with a direct effect on GHG emissions; however, this is a price worth paying for their wellbeing).
Coherence	Relate to the connection of the action with the overall policy and regulation framework and possible inputs for future developments.	Refer to the documents collected in all the three phases: diagnosis, planning and implementation.	The local, regional, national and EU policy framework has been taken into consideration as enabling factors. These parameters evaluate how much the actions were supported and how well they observed these regulations and policies, and which inputs can be given back to the different actors to improve the frameworks.
Sustainability	For specific actions that foresee a continuation in the long term after the first implementation to evaluate if they are self-sustainable or need external input.	Based on the actions selected, some are time-limited (e.g. awareness campaigns), while some others foresee the need to keep working (e.g. energy communities), taking the financial plan into consideration.	In case the action has a specific cost in the future (particularly related to operational cost), evaluate what is the likelihood of it being self-sustained or whether it will need additional support from other resources.
Scale up or replicate	A general summary of the whole evaluation that reflects the worthiness and possibility of replicating or scaling up the action.	Based on the overall analysis of the other criteria and on the degree of innovation of the action.	Here, you should underline the enabling conditions, specificities, lessons learnt that are key to an effective implementation of the action and the possibility of scaling up (addressing more beneficiaries) or of replicating it (in the context of other areas). This information should also constitute a key element for peers to evaluate the likelihood of having similar results in their local context.

The *impact assessment* report should be a comprehensive document that describes the action developed and includes an analysis of the above-mentioned criteria. Consider including additional information if appropriate. For example, it may be that during the implementation of the action, new data became available which provided a new perspective on the local energy poverty and this can influence the definition provided in the diagnosis. Furthermore, after the implementation, it might be possible to refine the planning of future similar actions.

This report establishes the closure of a first completed loop, starting with the diagnosis and concluding at the end of the action.

Effective communication is crucial to inform the local population and all interested stakeholders about the energy poverty actions. It is recommended that local governments consider the organisation of a proper moment in which to share the results achieved, both internally and also with external stakeholders. Presenting the action to a wider audience can help to achieve broader impacts and facilitate upscaling, replication and integration into local and national energy policies.

SUGGESTED LINKS

- A framework for policy mix analysis: assessing energy poverty policies, Salomé Bessa, João Pedro Gouveia, November 2022
- Basic principles of monitoring and evaluation, International Labour Organization

SUGGESTED ACTIVITIES

- Develop your own Impact Assessment and formalise it in an impact report.
- Engage with different stakeholders to present the results of the impact report and make sure it is aligned with their perception of the situation.

RENEW THE CYCLE

Tackling energy poverty is rarely a straightforward endeavour, with all its steps already set in stone. More often, due to the complexity of the topic itself, it is a **long-term journey**. The EPAH methodology is designed to provide a framework that can be replicated multiple times and updated with the different levels of knowledge achieved. From this perspective, the end of implementation often does not constitute the end of the journey but of a renewal of the circle, opening new possibilities for addressing energy poverty at a more comprehensive level.

We advise starting again from the diagnosis. At this point, some steps will indeed be more intuitive and faster. However, it is worth trying to go through each of them because they can be enriched in light of the new knowledge acquired. For example, Step 2 of Diagnosis: Identify and engage the stakeholders involved may be enriched with new key actors that have become active or that were off your radar before. If the implementation was well designed, it can also be that at this stage you have more data available (Step 5: Collect data and additional evidence) and, in light of this, you can add a new layer of description to your energy poverty definition. Once the diagnosis has been reviewed, you should also review the planning consideration that, with the passage of time, your priorities may have changed under the influence of multiple factors and this can result in a different selection of actions to be performed. On the other hand, it can also be that the actions you have already implemented have given you the possibility of **addressing other challenges** that were impossible to think about before.

The more you gain experience on the topic, the more ambitious you can be with your vision and objective, while probably being faster and more effective in tackling energy poverty. **We wish that tackling energy poverty was a sprint, but we have to acknowledge that, more often, it is a marathon.** Take time to celebrate the results achieved and get ready to renew the cycle at a different, higher level. We hope that, every time that you go through the cycle, these handbooks will give you the right support to investigate the local context, design effective actions and efficiently implement them to reach your energy poverty mitigation objectives.

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