Tackling energy poverty with low-carbon interventions

A Policy Brief from the Policy Learning Platform on Low-carbon economy

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Interreg Europe

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Images courtesy of the Andalusian Energy Agency

Summary

Energy poverty is of growing concern in Europe, as a result of rising energy prices that are having an impact in all parts of the continent. Public authorities need to find ways of tackling energy poverty, to improve quality of life for citizens, while also contributing to decarbonisation goals. Many current policy solutions simply subsidise fossil fuel energy, but interventions should instead contribute to Europe's climate goals by improving energy efficiency, supporting the integration of renewable energy resources, and improving user behaviour. These low-carbon interventions are typically longer-term but are already being proven as cost-efficient and effective in examples from across Europe. Practices and pilots from Interreg Europe projects demonstrate approaches that can make new low-carbon technologies accessible, provide financing for projects, empower citizens and communities to act, and set new normative frameworks to mainstream sustainable energy.

Energy Poverty in Europe

Access to energy for warmth, cooling, lighting and power for home conveniences and leisure is vital for a decent standard of living and health, and avoidance of social exclusion. The inability to afford energy has a significant impact on individuals in terms of their ability to care for themselves and inadequate indoor temperature, poor air quality, damp, mould, and the stress of unaffordable bills, have a significant impact on both physical and mental health.

'Energy poverty' has no single definition but the European Commission defines it as 'when energy bills represent a high percentage of consumers income, affecting their capacity to cover other expenses, or when consumers are forced to reduce their energy consumption with an impact on their physical or mental well-being'. Energy poverty derives not only from low incomes, but also from poor energy efficiency of appliances (such as heating, hot water, cooling, and lighting, amongst others), as well as the buildings themselves.

It is estimated that around 34 million people in the EU are in energy poverty, with a 2020 survey revealing that 8% of the EU population could not afford to adequately heat their homes.[1] Whilst energy poverty has been a long-term concern it is currently rocketing up the political agenda, not only in Europe, but around the world because of rising energy prices and the economic fall-out of COVID-19. Gas, coal, oil, and electricity prices are rising significantly as economic activity returns. The situation in Europe has been made even more acute following Russia's invasion of Ukraine, with embargos and sanctions on energy imports as awareness grows of the threats engendered by energy dependence. Energy poverty rates are linked not only to energy prices however, and in the pandemic people spent more time in their homes, using more energy, and many lost jobs, or are otherwise squeezed by inflation.

Those most at risk of energy poverty are those who are most economically vulnerable in general, including low-income families, single-parent households, elderly people, and ethnic minorities. People across Europe struggling with energy bills are having to make very difficult decisions between paying for heat and lighting or being able to afford food. Access to energy is a matter of life and death for some, and governments will need to step in across the continent to alleviate the worst impacts in the short-term through energy subsidies and grants. However,

[1] European Commission DG Energy – Energy Poverty

in the long-term, such interventions will not be sustainable from either financial or environmental viewpoints, and politicians need to consider long-term changes to shield people from turbulent energy markets.

Such long-term changes could include, of course, greater investments into fossil fuel capacity, but this is not compatible with Europe's long-term climate goals under its Paris Agreement obligations. Instead, interventions need to also contribute to carbon emissions reductions by reducing energy use through efficiency interventions and increasing use of renewable energy.

Challenges to tackling energy poverty

Although there is high political imperative, there are specific challenges related to improving energy performance for vulnerable groups. Inhabitants often have low awareness of renewable energy and energy efficiency interventions so it can be difficult to involve them in projects. Vulnerable groups are also heterogenous and difficult to access, and there remains a lack of tools for identifying energy poverty. Often those in financial difficulty may be ashamed to speak of their situation, and so do not let others know, especially not public authorities, who may be viewed as intrusive. Accurately measuring energy poverty and using suitable indicators is therefore a difficulty. Indeed, there is no standard definition of energy poverty, and it is therefore left to Member States to develop their own criteria according to their national context.

For many in energy poverty, energy consumption is already very low, so it is difficult to make quick gains through 'low-hanging fruit' efficiency improvements. Instead, deeper renovations and installation of renewables may be the best answer, but it can be difficult to access funds for these more cost-intensive interventions.

These challenges are particularly deep in social and public housing, which can be very old, therefore requiring deep renovations. They also suffer from the owner-tenant dilemma, that there is little incentive for owners to make improvements if the inhabitant is paying the energy bills, as there are no benefits for them from energy efficiency and renewable energy investment.

European Policy Framework

European energy policy is primarily, though not exclusively, focused on reducing carbon emissions to avoid the worst impacts of climate change. However, the EU also recognises that energy policy has profound impacts on industrial policy, economic development, social policy, and international relations and security, being also a fundamental part of international trade. For this reason, Europe's energy policy framework is wide reaching and provides significant levels of support for different sectors.

Energy poverty is taking an increasingly central position in Energy policy, with a focus on citizen-focused energy systems in the 'Clean Energy for all Europeans' package, which required Member States to tackle energy poverty in their National Energy and Climate Plans (NECPs). The more recent European Green Deal has also required Member States to reduce energy poverty in the framework of the sustainable energy transition, including considering energy poverty in their Long-Term Renovation Strategies under the Renovation Wave.

Tackling energy poverty therefore needs to be seen within the broader framework of building a low-carbon and citizen-focused energy system, with greater participation of individuals and groups. Member States are required to remove barriers to energy markets for prosumers thanks to the Renewable Energy Directive and the Internal Energy Market Directive, amongst others.[2]

In 2018, the European Commission established the EU Energy Poverty Observatory, later replaced with the Energy Poverty Advisory Hub (EPAH), a collaborative network of stakeholders aiming to provide energy poverty expertise, and aiming to eradicate energy poverty and accelerate the just energy transition. The EPAH provides reports and guidance on local actions, online courses, and events, with a focus on the local level, as well as the EPAH Atlas of case studies.

European Commission Recommendations on Energy Poverty [3]

As well as the above mentioned indicators, the European Commission has also published a set of recommendations on energy poverty for Member States to consider. These include:

1. Develop a systematic approach to the liberalisation of energy markets, with the aim of sharing the benefits with all sections of society, particularly those most in need;
2. Take account of available guidance on indicators on energy poverty as well as on the definition of what constitutes a significant amount of energy poor households when implementing and updating their current national energy and climate plans;
3. Produce integrated policy solutions as part of energy and social policy, including social policy measures and energy efficiency improvements that reinforce each other, especially in housing.
4. Assess the distributional effects of the energy transition, in particular energy efficiency measures in the national context, and define and implement policies that address associated concerns. Due attention should be given to barriers to investment in energy-efficient housing and the profile of dwellings in most need of renovation, in line with national long-term renovation strategies.
5. Develop all policies to tackle energy poverty on the basis of meaningful and accountable processes of public participation and broad stakeholder engagement.
6. Develop measures to address energy poverty that build on close cooperation between all levels of administration, enabling, in particular, close cooperation between regional and local authorities on the one hand, and civil society organisations and private sector entities on the other.
7. Take full advantage of the potential to deploy Union funding programmes, including cohesion policy, to tackle energy poverty by analysing the distributional effects of energy transition projects and prioritising measures targeting vulnerable groups to ensure access to support.
8. When allocating public funds, especially grants, target low-income households in those categories of beneficiaries that have very limited resources of their own and limited access to commercial loans. Explore the role of energy service companies (ESCOs) and energy performance contracts in providing renovation financing solutions for energy poor households that enable these vulnerable households to overcome high upfront costs.

It is important to remember that there is no quick fix to energy poverty. In the short-term, energy subsidies will be the simplest and quickest solution for tackling those in need, but this solution is not financially sustainable, and if subsidising fossil-fuel energy, it is also not environmentally

[2] For more information, see the Interreg Europe Policy Learning Platform's Policy Briefs on Renewable Energy Self-Consumption and Renewable Energy Communities

[3] Commission Recommendation 2020/1563 of 14 October 2020 on energy poverty

sustainable. Instead, public authorities need to begin work on mid- to long-term interventions. Decentralised and community renewable energy have particularly high potential to provide renewable energy for vulnerable households, and energy efficiency measures will be essential. Financial resources are available via the European Structural and Investment Funds for such interventions, but it is necessary to first identify suitable measures, as explored by Interreg Europe projects.

Tackling Energy Poverty in Interreg Europe

With this need to find long-term interventions to decarbonise energy and reduce poverty, there is also an urgent need to identify **good practices** and proven successes that can be transferred and implemented elsewhere, as well as to develop and **pilot new types of actions** that can contribute to both goals. Energy poverty has been a cross-cutting issue in several Interreg Europe projects, but has been explored, in particular, in two Interreg Europe projects, each taking a slightly different angle: one mainly focused on integration of renewable energy technologies, and one more focused on improving energy performance via energy efficiency improvements. Both have identified good practices and developed pilot actions, of interest to other regions:

- **Good Practices** – A good practice is defined as an initiative that has proven to be successful (had a tangible and measurable impact) in a region, and which is of potential interest for other regions, providing a learning opportunity and potential replication;
- **Pilot Actions –** Interreg Europe Pilot Actions enable project partners to test a good practice or approach, building upon experience and practices identified during project exchange.

Key Projects

POWERTY Interreg Europe

Renewable energies for vulnerable groups
Duration: 2019-2023
Good Practices: 42
Pilot Actions: 3 (Bulgaria, France & Spain)
Website: interregeurope.eu/powerty

Social Green Interreg Europe

Regional Policies towards Greening the Social Housing Sector
Duration: 2016-2021
Good Practices: 14
Pilot Actions: 1 (Romania)
Website: interregeurope.eu/socialgreen

These projects have identified numerous measures, developed action plans, and are implementing pilot actions for tackling energy poverty in their regions, and these experiences provide the core of this policy brief content, though input has also been drawn from other projects as well. As well as the information provided in this brief, more information can be found in the project websites, above.

The good practices and pilots identified fit broadly into a number of categories, adapted from a classification developed in the POWERTY project. Regions, when developing their energy poverty mitigation methods, will need to ensure that instruments cover multiple aspects and

are suitable for their target audiences, developing, ideally a portfolio of interventions. The classification is as follows:

1. Interventions that identify, demonstrate, and install renewable energy and energy efficient **technologies**, tools, and methods for vulnerable users;
2. Interventions that leverage new **financing** such as financial mechanisms and instruments;
3. Interventions that overcome barriers of a **normative** character, placing requirements onto homeowners to make interventions, or reducing regulatory burdens to making improvements;
4. Interventions that **empower** citizens, particularly vulnerable groups, and local authorities in taking action themselves via behaviour change, educational or community initiatives.

As a starting point of this policy brief, energy poverty was discussed amongst projects and participants at a dedicated energy poverty workshop, which enabled exchange between projects and the audience to determine the most interesting interventions.

Workshop on 'Regional and local approaches to fight energy poverty'

On 17 March 2022, the Policy Learning Platform hosted an e-workshop on the topic of 'Regional and local approaches to fight energy poverty' (recording and materials available via the link), focusing on how regions can support those suffering from energy poverty by supporting the sustainable use of energy. The workshop involved keynote presentations from the POWERTY project and the European Commission, with presentations of three Pilot Actions, and three Good Practices from projects, which showed promise for replication.

Pilot Actions

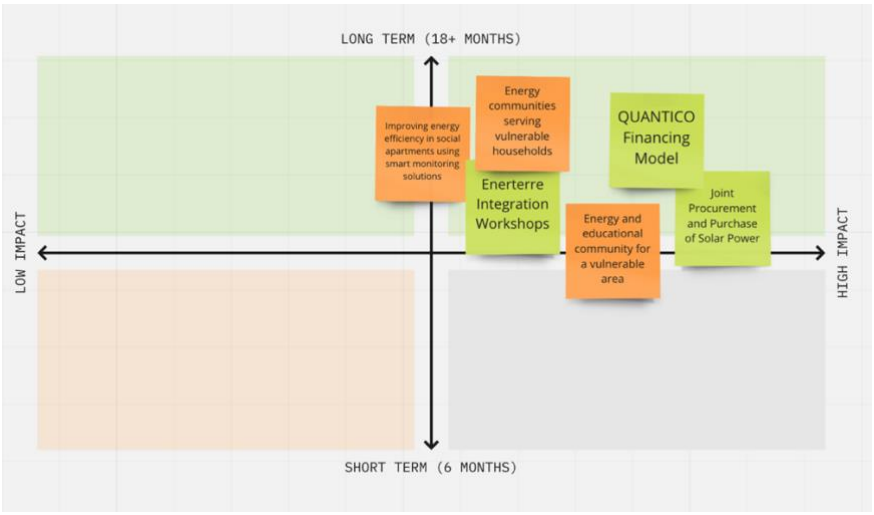
- Improving energy efficiency in social apartments using smart monitoring solutions (see Pilot Action 2, page 9)
- Energy communities serving vulnerable households (see Pilot Action 3, page 10)
- Energy and educational community for a vulnerable area (see Pilot Action 4, page 13)

Good Practices

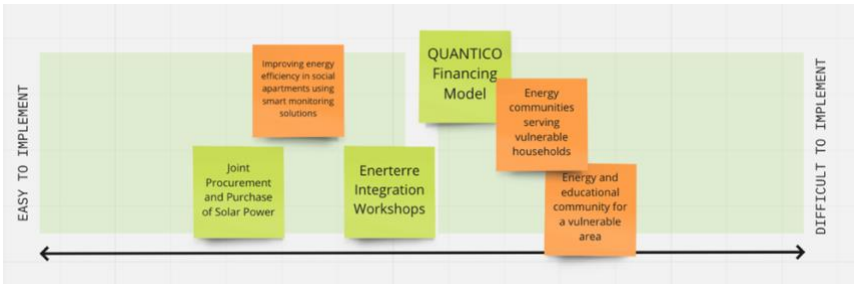
- Joint Procurement and Purchase of Solar Power (see Good Practice 2, page 11)
- QUANTICO Financing Model (see Good Practice 3, page 12)
- Enerterre Integration Workshops (see Good Practice 5, page 13)

After each presentation, participants (comprised of regional and local policy-makers, municipal representatives, energy professionals and researchers) were asked to assess the practice or pilot based on several parameters, to help determine which interventions regions should prioritise. Firstly, they were asked to determine the impact that they would expect each intervention to make in their region, as well as the expected duration of implementation, as presented on the axes below.

All practices presented were deemed to be of mid- to high-impact, with those supporting financial mobilisation being deemed of highest impact, but none were viewed as especially short-term interventions.



Participants were also asked to estimate the ease of implementation of these practices, based on the experiences, skills, and resources already available in their region, as presented below.



Finally, participants were also asked to assess where practices and pilots fit in the categorisation presented: **normative**, **financial**, **empowering,** or **technical**. All practices were assessed to fit into multiple categories, but each also had a main categorisation.

The exercise demonstrated interest in all of the approaches presented, illustrating that all were appreciated for their potential replicability, with joint procurement of technology being the stand-out as a high-impact, mid-term, and easy intervention.

Good Practices and Pilot Actions

Good practices identified in Interreg Europe projects fit into all of the categories demonstrated above. Although, as noted, practices tend to have characteristics of several categories, we present outstanding practices and pilots under each primary classification, below.

Technology Interventions

Technological interventions relate to those which are mainly focused on adaptation, installation and operation of renewable energy and energy efficient technologies for vulnerable users. This can include installation of technologies for both electricity and heat by contracted professionals, but also smart monitoring systems for measuring and improving energy performance. Practices usually also include an educational aspect to inform inhabitants about the technology, but with minimal requirement for action by the home owners.

Pilot Action 1: Photovoltaic installations with battery storage in social buildings

The recent rise in energy prices is putting stress on buildings with a high concentration of vulnerable consumers, such as in the social housing sector. Most of the existing practices in Bulgaria related to the support of the most vulnerable groups were limited to the provision of short-term financial support, without focusing on sustainability matters. Learning from success of self-consumption practices in Andalusia (Spain) and Auvergne Rhone Alpes (France), the Energy Agency of Plovdiv sought to establish innovative practices that could protect vulnerable end users by making use of renewable energy.

Hybrid photovoltaic and battery energy storage are a key technology option for achieving sustainable energy supply, as these systems provide competitive renewable energy to meet the needs of buildings. These hybrids allow a significant increase in energy self-consumption and self-sufficiency of the building by storing excess energy for use during hours without photovoltaic generation.

Public building for children with disabilities in Plovdiv

To demonstrate the feasibility of such technology, the Energy Agency of Plovdiv implemented three photovoltaic storage systems together with batteries with a total installed power of 26 kWp

and 82 kWh respectively in three buildings used for social purposes. This good practice demonstrates a model where self-sufficiency increases considerably when battery storage is used, which improves the autonomy of the prosumer, especially in the low heating season. Thus, any user of this technology can achieve significant cuts in electricity consumption and CO_2 emissions, especially in the months of high solar radiation. In the end, this is a prerequisite to minimize the risk of energy vulnerability.

For more information, see the Pilot Report at the POWERTY library.

Social Green
Interreg Europe

Pilot Action 2: Improving energy efficiency in social apartments using smart monitoring solutions

Building from experience exchanged in the Social Green project, Alba Iulia Municipality in Romania developed a pilot action to implement smart monitoring and behaviour change measures in a social housing building. The building, built in 2013, already had a good energy performance level, but still energy bills were high suggesting that behaviour change interventions, and not only technical and material measures, were required.

As a first step, the municipality examined the energy performance of the building, and the behavioural patterns of its inhabitants, as well as their openness to energy interventions and introduction of smart metres. In the second phase of the pilot, ten apartments were equipped with smart metres and monitoring devices and given training on how to understand their energy bills and the monitoring data, and advice on improving performance by implementing small day-to-day changes.

After 12 months of monitoring energy use and providing information to inhabitants, the pilot achieved an 11% reduction in electricity consumption, a 7% reduction in energy for heating, and 13% in energy for hot water. The pilot received positive feedback from the inhabitants and will be scaled up to other buildings in the municipality.

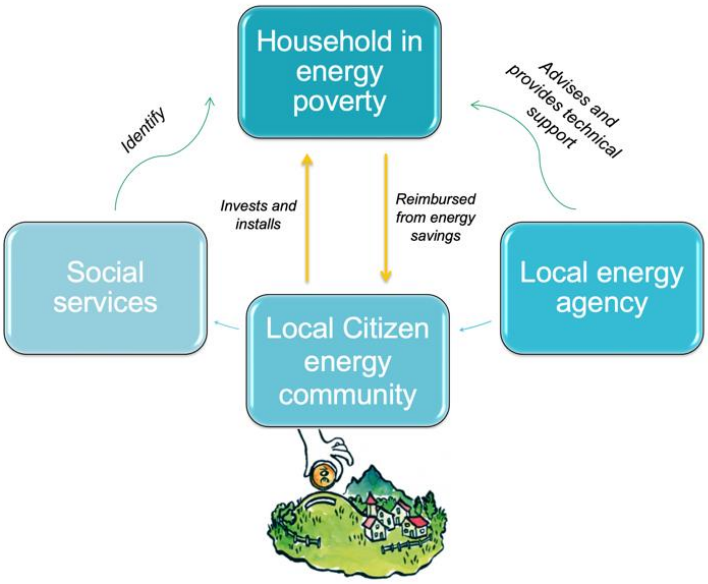
For more information, see the Social Green Pilot Report.

Financial Interventions

Financial interventions are designed to leverage funds, such as financial mechanisms and instruments, but also energy communities, project bundling, Energy Service Companies (ESCOs), rental systems, crowdfunding, and sustainable public procurement criteria. Novel forms are emerging using energy communities and ESCO contracting to provide sustainable energy to vulnerable users, amortised through energy bill savings, with the installations later becoming the property of the homeowners. Project bundling practices are also increasingly being applied to bring down costs through bulk purchasing.

Pilot Action 3: Energy communities serving vulnerable households

Drawing from lessons learned in the POWERTY project, and in particular the QUANTICO Rental model (see Good Practice 3), the Auvergne-Rhône-Alpes Energy Environment Agency in France has implemented a pilot action to develop a new Energy Savings Company (ESCO) contract model between citizen energy communities and vulnerable households to install renewable energy technologies in the latter's homes, in particular for their heating system (wood, solar thermal, heat pump).



Working with a local citizen energy company, Buxia Energies, the ESCO model enables a community energy group to finance the installation of renewable energy technologies for vulnerable users, and own the installation until it is paid off by the user from their energy bill savings. The model also involves local social services, who have the role of identifying households in need, and the local energy agency, which provides advice and support. The contracting model had to take account of the incentives for each stakeholder, risks of not achieving the expected energy bill savings, risks of non-payment by the occupant, and maintenance and repair issues.

The model could be applied to multiple technologies which can be used in a decentralised manner, from solar thermal and solar photovoltaics, to biomass boilers. Having defined the contractual and economic models, they are being disseminated for replication and use in the region's energy communities.

For more information, see the Pilot Report at the POWERTY library.

Good Practice 1: KredEx Revolving Fund

Like many post-Soviet countries, Estonia faces a significant challenge in improving and renovating multi-occupancy buildings built before 1990, without energy performance standards. The KredEx Revolving Fund was founded in 2009 under the Estonian Ministry of Economic Affair, pooling European Regional Development Fund (ERDF) and national funds, as well as funds from the European Development Bank, to provide finance to multi-family apartment renovation. The fund has renovated more than 600 apartment buildings, with an average energy saving of 40%. The investment is paid off from energy bill savings. One such example is the Sõpruse 202 building in Tallinn, the first financed by the fund, which achieved 60% savings at a cost of 12,000 EUR per apartment.

For more information, visit the Interreg Europe good practice database.

Good Practice 2: Joint Procurement and Purchase of Solar Power

The Regional Council of North Karelia, Finland, implemented a process of joint procurement to purchase photovoltaics for private households to bring down the cost of panels through collective purchase. The process was established with ERDF funding, aiming to increase the share of renewables in the region. Working with the Finnish Environment Institute and the Carbon Neutral Municipalities Network, North Karelia collected interest from local inhabitants following information events and communication campaigns, reaching 250 people. The municipality then arranged a collective tender for these households, installing 41 new solar power plants. Around 60% of participants were from rural and agricultural areas. The collective purchase achieved cost savings of 30% compared to the average market price, with minimal effort needed form the households themselves.

For more information, visit the Interreg Europe good practice database.

Good Practice 3: QUANTICO Financing Model

The QUANTICO rental model from Spain gives households access to an easy and simple, turnkey mechanism, for energy self-consumption, without high upfront payments. Instead of purchasing panels, homeowners can rent them at a low-cost per month, with installation and maintenance managed by QUANTICA RENOVABLES. The model has proved successful for social and publicly-owned buildings, bringing an ESCO-model to a sector in which it is rarely used, and is particularly beneficial in providing a simple and easy mechanism.

For more information, visit the Interreg Europe good practice database.

Normative Interventions

Normative interventions refer to those that seek to mainstream the use of certain technologies and approaches by setting supporting frameworks and providing advice. They can include handbooks and guides, national or regional strategies, regulatory changes or introduction of new standards or quotas.

Good Practice 4: Spain's National Strategy Against Energy Poverty

In 2019, in response to rising energy prices, the Spanish Government introduced a new strategy to reduce energy poverty. It comprised of efforts to diagnose and characterise energy poverty, set an official definition for energy poverty for the first time, created indicators for measuring poverty levels, and set a reduction target of 50% by 2025. The strategy also included planned actions including building and district renovations, energy subsidies for vulnerable groups and substituting energy intensive equipment with efficient technologies. The strategy also foresees development of a new protocol to detect energy poverty, seeks to standardise information management for public authorities, and provide information to consumers on improving their energy consumption.

For more information, visit the Interreg Europe good practice database.

Empowerment Interventions

Empowerment interventions seek to place citizens at the heart of the energy transition, encouraging direct engagement, creating new economic opportunities, supporting skill development, and building community cohesion. They can build new groups to take collective

action, involve citizens directly in planning exercises, provide educational and training activities, and provide targeted, personalised advice to households.

Good Practice 5: Enerterre Integration Workshops

In Lower Normandy, France, inhabitants in energy poverty had difficulty in improving their situation and access assistance in retrofitting their homes. As a result, the Enerterre project was established to enable the rehabilitation of houses in poor condition through voluntary participation of homeowners and inhabitants looking to gain new skills. The overall process for each building is overseen by an energy efficiency professional, with participants gaining a strong knowledge of energy performance and construction. Natural and local materials are used as far as possible, keeping finances in the region, while also increasing social inclusion of vulnerable citizens. Enerterre has renovated around 60 households and trained more than 320 people since establishment, with more than 130 families total having expressed an interest.

For more information, visit the Interreg Europe good practice database.

Pilot Action 4: Energy and educational community for a vulnerable area

Inspired by a French practice for collective investment in renewables, the Andalusian Energy Agency (Spain) set up a pilot to test the creation of the *"Torreblanca Ilumina" Energy and Educational Community,* in a vulnerable area, namely the Torreblanca neighbourhood of Seville, the fourth poorest region in Spain. The pilot aimed to give vulnerable groups access to renewable energy to save on their electricity bills and alleviate energy poverty, as well as to educate vulnerable users on their energy use and on sustainable energy more broadly.

Students from the Vélez de Guevara public school in Torreblanca

As a starting point, Som Energia, a POWERTY stakeholder, established the community as a legal entity, choosing a 'non-profit association' form, and identifying a location for the pilot installation.

Then, with the support of the Andalusian Energy Agency, in a first phase, a complete **process of social revitalisation and citizen participation** has been carried out to publicise the energy community and to involve people in vulnerable situations and small businesses in the neighbourhood. It will design a set of template, models, and materials for activating vulnerable groups, for use by other regions, which is expected in mid-2022.

Following this, a fifteen-kW photovoltaic collective self-consumption installation has been set up on the roof of two public schools, which will supply electricity to eleven vulnerable households. An energy office has also been created, where personalised advice on energy is offered to families in the neighbourhood.

This pilot action is generating a lot of interest in Spain and has received second prize for the best energy community in Spain at the national awards of the Association of Spanish Agencies for Energy Management (EnerAgen).

For more information, see the Pilot Report at the POWERTY library.

BUILD2LC
Interreg Europe

Good Practice 6: Working with students to combat energy poverty

Not all interventions to tackle energy poverty need to be high-tech or complex. In some cases, low-hanging fruit will be easily available through minor interventions. In Slovenia, the NGO Focus (Association for Sustainable Development) provides training to students so that they are able to make visits to vulnerable households and advise individuals on their energy and resource use. The students will review household bills for electricity, heating, and water, assess energy consumption and water use, and examine household appliances to get an overview of overall resource use. In a second visit, the students will install free devices to improve performance, such as energy saving lightbulbs, economic showerheads and tap fittings, and window and door gaskets to prevent drafts. They would also provide advice on where to get additional advice. These interventions would cost around 80 EUR per household, but result in annual savings of around 100 EUR.

For more information, visit the Interreg Europe good practice database.

Recommendations & key learnings

Energy poverty is becoming a major challenge across Europe and policy-makers need to act urgently to tackle it. There will be no quick fix to the challenges, with subsidies being the most suitable solution in the short term. In the long-term, this will entail a shift towards a citizen-focused energy system, in which individuals and communities will play an active role. Interventions need to be made now to secure this long-term reorientation. Some concrete suggestions are provided here below:

- A major challenge remains in **identifying people at risk of energy poverty**. The guidance provided by the European Commission in its Energy Poverty Recommendations on indicators should be taken account of, and public authorities should collaborate with social services and citizen groups to identify those in need;
- Regions will need to **pull all available levers** to reduce energy poverty. Implement an overall strategy and action plan, as in Spain (Good Practice 4), and introduce a range of policies from the mix of technology, normative, financial, and empowering classifications;
- **Community energy** is a very promising solution, not only providing sustainable energy, but also developing community cohesion and supporting the emergence of new skills and financial opportunities in the region;
- The **ESCO model** is well proven and long-used, and the pilot actions in Spain and France demonstrate that combining with energy communities, who are already community-focused, is a way of overcoming the challenge of energy poverty. The mixture of ESCO and rental model (Good Practice 3) is also very promising;
- Intervention programmes can also be a chance for **developing new skills**, as in France and Slovenia (Good Practices 5 and 6), helping to improve employability and economic opportunities through hands-on experiences that also help those in need;
- Do not rely only on installation of new technologies – low-hanging fruit can be reached through **monitoring and behaviour change measures**. Citizen training and education can have a high impact for fast savings (see Pilot Action 2);
- **Project bundling and joint procurement** have high potential for bringing down costs. The case in Finland (Good Practice 2) generated a large amount of interest and has been recognised as a quick and high-impact practice that could be easily replicated;
- **Look for examples that have worked in the past**. As well as Interreg Europe's experiences, the European Commission is providing support via its Energy Poverty Advisory Hub, with reports and guidance on local actions, online courses and events as well as the EPAH Atlas of case studies;
- Advice is also available via the Interreg Europe Policy Learning Platform which provides on demand services via matchmaking sessions and peer reviews. They can provide policy makers with experiences and in-depth knowledge from other policy makers that have successfully found solutions for similar challenges.
- Look into what the **project POWERTY** has achieved, it can be a real source of inspiration (see box below).

Key Lessons from POWERTY – Renewable Energies for Vulnerable Groups to tackle Energy Poverty

Ruth Borrego Andrade & Joaquín Villar Rodríguez
Andalusian Energy Agency
Lead Partner - POWERTY


POWERTY faces two of the great challenges related to energy: **climate change and energy poverty**. Renewable energies, abundant in many European regions, are one of the best tools to face both challenges, in an energy transition that, in addition to being clean, must be fair. All citizens, including people with fewer resources suffering from energy poverty, must be able to use renewable energy. **An energy transition that leaves no one behind**.

To do this, POWERTY, after carrying out a SWOT analysis of the regions that cooperate in this project (ES, FR, BL, PL, LT), has identified more than fifty national, regional and local good practices in which to inspire other countries to start to reduce energy poverty through the use of renewable energies and, furthermore, to influence policy instruments facilitating this reduction adapted to vulnerable groups through the execution of regional action plans.

Among the good practices, several stand out as providing promising examples and lessons for other regions:

- **Collective photovoltaic self-consumption systems** and **urban energy systems** can ensure energy for a district, city, or region;
- Unlock financing with solutions such as **crowdlending-type collective financing platforms** for renewable projects, the use of **Corporate Social Responsibility** for companies, **collective purchases** of renewable installations and **energy service company projects;**
- Improvements in regulations on renewable energy and energy poverty are needed, such as the **simplification of administrative procedures**, the creation of **public guarantee funds** to facilitate the financing of renewable energy, and **national and regional strategies** to mitigate energy poverty;
- Take advantage of **social innovation** to empower vulnerable groups, **through energy communities**, one of the best tools to reduce energy poverty. Also, **platforms** that make it easier for small consumers and producers to exchange renewable energy, the creation of a **network of energy offices** that offer advice to people in vulnerable situations, or activities of **revitalisation and citizen participation** to involve people in community energy initiatives.

POWERTY has gone further by developing three real renewable energy projects (Pilot Actions 1, 3 and 4) to reduce energy poverty in different European regions. We hope that these pilot actions, with a demonstrative nature and a direct impact on the territory and people, will provide inspiration for other regions to take action!

Does your region need support in defining new instruments and strategies?

The Policy Learning Platform, provides a number of services to both ongoing projects and the wider regional policy community, including on-demand Expert Support via a helpdesk, matchmaking service and peer reviews:

- At the Policy Helpdesk, Policy-makers may submit their questions to our helpdesk to receive a set of resources ranging from inspiring good practices from across Europe, policy briefs, webinar recordings, information about upcoming events, available European support and contacts of relevant people, as well as recommendations on matchmaking and peer review opportunities.
- A Matchmaking session is a thematic discussion hosted and moderated by the Policy Learning Platform and designed around the policy needs and questions put forward by the requesting public authority or agency. It brings together peers from other regions in Europe to present their experiences and successes to provide inspiration on overcoming regional challenges.
- Peer Reviews are the most deep and intensive of the on-demand services, bringing together peers from several organisations for a two-day working session to examine the specific territorial and thematic context of the requesting public authority of agency, discuss with stakeholders, and devise recommendations.

Sources and further information

- Bringing Energy Poverty Research into Local Practice: Exploring Subnational Scale Analyses (2022)
- Under One Roof: Solving Society's Most Pressing Challenges through Housing – Social Green
- EU Policy, Neighbourhood Results: Towards Efficient & Impactful Green Building Projects in Europe – Social Green (2018)
- The Energy/Comfort Nexus: Towards Adaptive Approaches in Europe – Social Green (2019)
- Policy recommendations on greening the social housing sector – Social Green (2019)
- Good Practice Guide – POWERTY (2020)
- Looking Ahead to Blended Financial Models of Green Retrofits: Lessons learned from the Social Green Project (2021)

Policy Learning Platform Resources

Policy Briefs

- Behaviour change for energy efficiency
- Funding energy efficiency through financial instruments
- Renewable energy communities
- Renewable energy self-consumption
- Supporting energy renovation of private households through one-stop-shops

Event Learnings

- Energy performance in social housing

- Mobilising citizen financing for renewables
- Project bundling for photovoltaics on public buildings in the Azores
- Regional and local approaches to fight energy poverty

Stories

- Enabling community energy in Normandy
- ENERSELVES: Supporting energy self-consumption

#LowCarbon #EnergyPoverty
#Strategy #EnergyTransition
#EnergyEfficiency

Interreg Europe Policy Learning Platform on Low-carbon economy

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