



HOW RENEWABLES CAN HELP VULNERABLE HOUSEHOLDS



How renewables can help vulnerable households

Inspiration for National Social Climate Plans

To reach the EU's climate goals, a significant increase in renewable energy is required. Many people can also directly benefit from this shift to 100% renewables. Public support to help citizens install renewables has primarily been utilised by wealthy households to put solar panels on the roof of their homes. But for renewables to reach their full potential, it is vital that their benefits reach households living in rented accommodation or in buildings with multiple homes as well. Expanding support specifically for vulnerable people will not only help increase renewables production, but will also help those most affected by high prices for fossil fuels by allowing them to make significant financial savings.

Helping vulnerable households move away from fossil fuels is all the more important as carbon pricing will be introduced across the EU for fossil fuels used in transport and heating in 2027 (ETS-2). The EU has recognised this, and decided that some of the revenues from carbon pricing will be used to finance a Social Climate Fund (SCF). This report highlights some examples of projects that can be used to promote renewable energy for vulnerable households through SCF funding.

The EU Social Climate Fund

The SCF is intended to mitigate some of the negative impacts of higher prices for vulnerable households and micro-businesses. Despite the limited size of the Fund, it can serve as a blueprint for sensible use of revenues from carbon pricing. It can also contribute to a 100% renewable energy system that is led by citizens.¹

EU countries are allowed to use the money from the Social Climate Fund for a number of measures, "provided they principally target vulnerable households, vulnerable micro-enterprises or vulnerable transport users". These include "by integrating renewable energy generation and storage, including through renewable energy communities, citizen energy communities and other active customers to promote the uptake of the self-consumption of renewable energy, such as energy sharing and peer-to-peer trading of renewable energy."²

National Social Climate Plans (SCP) must be submitted by EU countries to the Commission by 30 June 2025. These plans will outline which measures are to be financed and how these measures address the impacts that ETS-2 will have on vulnerable households and businesses, timelines for implementation, estimated

The SCF is limited to around €86bn over 2026-2032. It is financed by three sources: First, a proportion of 25% of revenues from sale of ETS-2 emissions allowances until a cap of €65bn is reached. Second, EU countries must cofund 25% of the cost of the funds disbursed in their country (of the cost of their National Social Climate Plans). Third, a sale of 50m allowances of ETS-1, valued at around €4bn. Surprisingly, the €65bn cap was set in nominal terms.

^{2.} Regulation (EU) 2023/955 establishing a Social Climate Fund (SCF Regulation), Article 8

costs, as well as a summary of the stakeholder engagement conducted in the process of devising the plan and how it was incorporated into the plans.

Funding renewables with the SCF

Renewable energy can bring significant socio-economic benefits to low-income households and vulnerable energy consumers, which can:

- Lower utility costs, thereby helping families save on electricity bills and reducing energy poverty;
- Reduce exposure to price shocks compared to fossil fuels, making vulnerable households more resilient to adverse market dynamics;
- Provide reliable access to electricity, especially in regions with weak grid infrastructure.

However, renewable energy installations require relatively high up-front costs, as well as effort in seeking administrative approval, and a viable model to use or sell the renewable electricity produced. Vulnerable households are typically disadvantaged on all of these fronts:

- Often they have little or no savings and face difficulties in accessing credit or can only do so under unfavourable conditions;
- They may have less experience in navigating public administrations and difficulties accessing support (e.g. by legal professionals);
- They are more often tenants, creating the challenge that owners need to agree to installing renewables and an economic model for both needs to be designed.

The projects that we present hereafter attempt to address these barriers. Beyond material benefits, they also provide the opportunity for vulnerable households to engage in co-ownership and decision-making, and to overcome the dependency on polluting energy. Participation in these projects can engage on energy usage, the potential of renewables and climate change more generally, in line with the philosophy of Renewable Energy Communities (RECs).³

Renewable energy projects benefitting vulnerable households

1. Italy, Porto Torres – Energy Income scheme

Renewable self-consumption for low-income home owners

In 2017, the municipality of Porto Torres piloted the <u>Reddito Energetico</u> (Energy Income) scheme, in which solar PV panels were installed free of charge on the homes of its citizens, starting with those in the lowest income brackets. Selfconsumed energy equates to financial savings on energy bills, while the revenues of energy sold to the grid are recycled into a revolving fund to enable more solar installations in a continuation of the scheme.

The scheme proved so successful that the Italian government decided to replicate it at national level. A National Energy Income Fund has been set up with a total budget of \notin 200 million for 2024 and 2025. Eligibility is limited to low-income households with an energy contract for their home. Renters are excluded from the scheme.

Which households are eligible?

Low-income households below €15.000 /year; <€30.000 /year with four or more children.

What is the economic model?

Tax credits create an incentive for developers to finance the investment with no upfront cost for households.

How do public funds enter?

The Italian state awards tax credits to the developer installing PV panels.

Who is responsible for implementation?

Households need to apply jointly with a contractor to the Italian state-owned organisation GSE (Gestione Servizi Energetici).

Source: European Energy Poverty Advisory Hub

2. Portugal, Porto – Renewable Energy Community "Agra do Amial"

Renewable self-consumption for social housing

The collective self-consumption scheme in the Agra do Amial neighbourhood in Porto relies on two solar PV generation units (one 13 kW installation on a school rooftop and a 101 kW installation on the rooftop of the social housing building blocks), plus two battery units as storage and flexibility tools.

This project helps fight against energy poverty by making solar selfconsumption available for free in social housing blocks, making use of a nearby public building rooftop and fostering a circular economy model with the creation of local repair centres for electronic equipment.

Which households are eligible?

Around 180 families residing in the social housing complexes in the Agra do Amial neighbourhood.

What is the economic model?

The PV panels are financed by public funds (see below). The electricity produced by solar PV located on social housing building and a nearby elementary school is provided for free to the households for a period of five years. Excess energy is sold to the grid.

How do public funds enter?

The PV panels are financed with €1 million from the "<u>Asprela + Sustentável</u>" project, funded by EEA and Norway grants, as well as €140k from the Municipality of Porto.

Who is responsible for implementation?

The project is managed by Coopérnico, a citizen energy cooperative. The technical coordination is the responsibility of AdEPorto (Porto Energy Agency) in close collaboration with the Municipality of Porto.

Source: EUROCITIES



3. Belgium, Eeklo – Ecopower + POWER UP scheme

O Access to energy communities for vulnerable households

Ecopower has been active with its community-owned wind projects in the Flemish town of Eeklo since 2001. Ecopower is a cooperative whose members can join for a ≤ 250 fee and share energy produced by community-owned renewable energy projects, significantly lowering the cost of their energy bills and resulting in wider community benefits.

To make the cooperative accessible to all, the city of Eeklo <u>pre-finances</u> <u>cooperative shares</u> and lends these to people who would not be able to pay this upfront cost on their own. Over five years, these beneficiaries will pay back the shares through a small monthly fee. However, the shareholders will be full members of Ecopower from day one, with all the rights that this entails, such as receiving renewable energy at a fair price, having a say in the cooperative's decisions, and potentially receiving dividends from revenues of sales to the grid.

Which households are eligible?

Underprivileged residents identified by the municipality.

What is the economic model?

The cooperative invests in renewable energy installations that are financed by revenues from selling electricity at less than market rates as well as the sale of cooperative shares of members. Low-income households' cooperative shares are repaid over five years.

How do public funds enter?

The municipality pre-finances the cooperative shares for low-income households.

Who is responsible for implementation?

The Ecopower cooperative together with the municipality of Eeklo: Ecopower contracted an engineer responsible for the project.

Source: ICLEI

4. Germany, Berlin - Renewable Energy Communities for tenants "BürgerEnergieBerlin"

Renewable self-consumption for tenants

BürgerEnergieBerlin allows tenants to benefit from cheaper renewable electricity by installing and operating solar panels and selling the electricity to tenants. The cooperative has recently co-founded a second organisation (StadtWatt eG) to promote solar PV installations on buildings owned by housing cooperatives. While not specifically targeting vulnerable households, many lower-income households are tenants. An alternative is for owners to operate and sell the renewable electricity themselves, requiring associated technical knowledge.

Which households are eligible?

Any households living in rented accommodation in which owners decide to call upon the services of BürgerEnergieBerlin.

What is the economic model?

The cooperative BürgerEnergieBerlin installs, owns, and operates the PV panels, and sells the electricity at below market rates to the tenants in the house. Surplus electricity is sold to the grid, a green electricity provider that is itself a cooperative (EWS Schönau) covers for periods of insufficient solar production. Anyone can become member of the cooperative BürgerEnergieBerlin.

How do public funds enter?

Public funds are not directly used. To implement the model, grid integration works are sometimes necessary, and here public funds are available. The cooperative relies on volunteering for many tasks.

Who is responsible for implementation?

The cooperative BürgerEnergieBerlin in conjunction with green electricity cooperative EWS.



Source: <u>BürgerEnergie Berlin / Stadtwatt</u>

5. Romania, national – Lights for Romania

Of Access to electricity with renewables

Light for Romania is a social campaign dedicated to families who live without electricity. The project discovers people in need via document analysis and field work, with collaboration from local authorities. With a budget range of between €100,000 and €1 million, the project installs solar PV systems that provide free electricity to almost 250 families, 4 public schools and 2 churches. In total, about 300 PV systems have been installed in 97 communes in 29 counties in Romania.

Which households are eligible?

Households with no access to electricity.

What is the economic model?

Renewables are financed by the association and electricity is provided for free to users.

How do public funds enter?

The association is financed by donations – both from individuals (taxdeductible) and corporations.

Who is responsible for implementation?

The association only installs panels, these are then operated independently by households.

Source: European Energy Poverty Advisory Hub



Policy recommendations

The SCF can help alleviate energy poverty and promote the uptake of renewable energy among low-income households and other vulnerable groups. However, its success will depend on the ability of EU countries to develop robust, inclusive, and forward-looking National Social Climate Plans that make effective use of the Fund's resources.

By learning from successful case studies and adopting targeted policy measures, the SCF can play a critical role in ensuring a just and equitable energy transition across Europe.⁴ In particular, it is crucial that the upcoming Social Climate Plans explicitly aim to:

- Ensure programmes reach the most vulnerable: Ensuring public funds are targeted effectively to the most vulnerable households is not simple. First, data is required on households' incomes. Second, effective access to programmes is maximised if households do not have to manage the investment, installation, and maintenance of renewable energy individually. This is especially true for multi-household buildings, where coordination may be difficult. Dedicated noncommercial structures such as cooperatives can create trust, ensure knowledge about project development is passed on from one project to the next, and help foster community cohesion. Many exciting energy communities inadvertently focus on less vulnerable households.
- Leverage public funds: Given the often fundamentally attractive business case for renewables, public funds can be used most effectively if they remove credit constraints, support operations management and outreach of schemes that facilitate investment. Public funds need not support the full cost of renewable energy installations – the revenues from the sale of electricity can be used to finance these over the project lifetime.
- **Exploit public land:** There is large potential for renewable energy on public buildings and public land. Renewable energy sited here can be distributed primarily to vulnerable households in collective self-consumption schemes, often requiring little upgrades to the distribution network.
- Scale up projects: Once investment costs are covered, revenues from renewable energy production can be used to finance further projects, creating long-term benefits for the community. SCF funding should prioritise measures that have the potential to be scaled and replicated.

^{4.} Other useful examples have been compiled by the European Commission in a note on good practices for costeffective measures and investments (available <u>here</u>) and through the work of its Energy Poverty Advisory Hub (report on local case studies available <u>here</u>). The solar PV industry association SolarPower Europe has also included some insightful case studies relevant to local anti-poverty programmes in its report Solar Cities 2023 (available <u>here</u>).

The European Environmental Bureau (EEB) is the largest network of environmental citizens' organisations in Europe. It unites 180 civil society organisations from 38 countries, working for a better future where people and nature thrive together.

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