Community Energy for Energy Solidarity: Evaluation of the CEES pilot projects

Full report

Kevin Burchell and Rosie Day
University of Birmingham, UK

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COMMUNITY ENERGY FOR ENERGY SOLIDARITY

Contents

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About the authors

Dr Rosie Day is an Associate Professor in the School of Geography, Earth and Environmental Sciences at the University of Birmingham, UK. She is an environmental human geographer, with research and teaching specialisms in environmental justice and energy justice, energy and water governance, and transitions to more sustainable societies. She has published widely on these issues and has had leading roles on many collaborative research projects funded by a range of UK and European funders. Contact Rosie: r.day@bham.ac.uk.

During the CEES project, Dr Kevin Burchell was a Research Fellow in the School of Geography, Earth and Environmental Sciences at the University of Birmingham, UK. Kevin is an experienced social science researcher and evaluator, with expertise in community action, community engagement and participation, energy communities, energy poverty, energy demand reduction, and flood and heatwave resilience. In the context of evaluation, Kevin specialises in using data and analysis to support compelling and actionable narratives for policy and practice. Contact Kevin: kevinwburchell@gmail.com.

1. Executive summary

1.1. Summary of key findings

In the Community Energy for Energy Solidarity (CEES)[1] project, six energy communities implemented six pilot projects to alleviate energy poverty, including projects to diversify sources of funding for this work. Knowledge exchange and mutual support between the energy communities was a key component of the six pilots. Within CEES, such projects are referred to as a form of energy solidarity. Led by The University of Birmingham, the CEES team implemented a comprehensive evaluation of the six pilot projects.

The CEES pilot project evaluation indicates that, when they have adequate resources, energy communities are able to implement energy solidarity projects that are highly valued by participating households and can produce positive change in households' energy know-how. Many households felt more able to afford their energy bills after being involved in one of the pilots. Due to external factors, such as changing seasons, it is not possible to wholly attribute this change to the pilot projects – nevertheless, this is a positive sign. Key factors in this success were: an approach to households that emphasises empathy, care and patience; ability to build trust; ongoing knowledge exchange between energy communities; and partnerships with other local organisations, such as the providers of health and social care services.

In addition, when they have adequate resources, energy communities are able to develop more entrepreneurial strategies for funding and income generation. For example, in CEES, the energy communities successfully secured funding from service contracts (from both public and private sector organisations), grants, and public and corporate donations. While grants and service contracts can support the staff time costs of energy solidarity work, this is less likely to be the case through donations, where the funding of materials for small measures is a more realistic ambition. Funders should note that grant funding is likely to remain an important component of energy communities' income strategies for energy solidarity work.

At the same time, work on energy solidarity is new for most energy communities and different from their more well-established activities. This means that energy communities will typically need to do significant preparation before starting to work on energy poverty alleviation. For instance, energy communities need to employ and train energy advisors who have the necessary values, 'soft skills',

[1] The CEES project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972. The project commenced in June 2021 and ran to the end of August 2024.

social instincts and technical skills for this work. In addition, it takes considerable time to develop and implement energy solidarity projects and energy solidarity teams need to be able to operate flexibly as they encounter inevitable challenges. Most of the pilot projects in CEES experienced challenges with respect to levels of householder trust, sometimes related to previous bad experiences with energy companies. As energy advisors who visit households will sometimes encounter people in very difficult circumstances, the work can be draining and energy advisors themselves will need support, as well as policies to ensure their health and safety when undertaking visits. The protection of householders is also important, through adherence to data protection legislation and systems for 'safeguarding' when householders are felt to be at risk of harm. The novelty of this work also suggests that energy communities are likely to encounter time-consuming challenges along the way.

It is important to recognise that the causes of energy poverty in Europe are structural. This means that they are rooted in the structures of labour markets, welfare systems, building fabrics and energy markets. For this reason, although many energy communities stand ready and able to work on energy poverty, responsibility remains with European governments to implement policies to address these more fundamental issues. Nonetheless, the CEES project has shown that energy solidarity approaches by energy communities offer considerable potential for energy poverty alleviation, in particular when energy communities are able to work with other local organisations.

1.2. Introduction

The CEES project

The central objective of the CEES project was to examine the proposition that energy communities can alleviate energy poverty in their local areas. This work is known within CEES as energy solidarity. CEES achieved this by bringing together six energy communities that have previous experience of working on energy poverty, facilitating inspiration and knowledge sharing between the energy communities (and other CEES partners), and implementing six pilot projects that included novel activities for each energy community. The six pilot projects were comprehensively evaluated and a CEES Energy Solidarity Toolkit was produced to support other energy communities in energy solidarity work. There is more information about CEES in Chapter 2 of this evaluation report.

The CEES pilot evaluation

The CEES pilot evaluation was based on an Evaluation Framework, which featured aims, principles, objectives, and definitions and indicators of key concepts relating to the processes and impacts of the six energy solidarity pilot projects. The evaluation employed a mixed-methods design, including the following elements: formal interviews with project managers and, in some case, with delivery teams; surveys with households, energy adviser trainees, energy advisers and local partners/stakeholders; informal interactions with project managers; and information gathering from internal project

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documents. There is more information about the CEES Evaluation Framework in Chapter 3 of this evaluation report and in the full Evaluation Framework document on the CEES website.

1.3. Key findings and learnings

Preparing for energy solidarity work

The evaluation of the CEES pilot projects highlights several aspects of how energy communities need to prepare to undertake energy solidarity work.

1. **Energy solidarity work is distinctive:** The CEES pilot projects show the extent to which work on energy poverty is different to the regular work of energy communities. In particular, work on energy poverty will inevitably take them into new and unfamiliar spaces and into supporting people who have challenging life experiences and situations. Indeed, in CEES, energy advisors sometimes encountered severe deprivation and desperation. Previous research emphasises that many people in energy poverty will have had negative previous experiences when they engage with organisations (both private and public), meaning that obtaining householders' trust can be challenging.

2. **Comprehensive planning and long term commitment:** Realistic project planning, action plans and evaluation plans are of critical value. Experiences in CEES suggest that energy solidarity projects will likely take longer and be more challenging to set up than expected. This has implications for budgets and funding.

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3. **Need for strong social instincts and skills:** The people who manage and deliver energy solidarity projects should have strong social instincts and social skills, such as empathy, understanding, listening and non-judgement, as well as technical energy know-how. One of the CEES partners used the term 'a sort of social worker' to encapsulate these skills. This means that it can be problematic to reassign existing staff to energy solidarity projects and that it will often be better to recruit staff with these skills specifically for this work.

4. **Training:** Comprehensive training for new energy advisers is essential. CEES partners suggested that it is more straightforward to train people in energy know-how than it is to train them in the essential social skills that are discussed above.

The Enercoop Solidarity Taskforce training day.

5. **Energy advisor well-being:** The work of energy advisers in energy solidarity projects can be rewarding. However, due to the challenging life situations of many clients, it can also be emotionally and psychologically demanding. Therefore, it is important to set up and implement workplace practices to support the well-being and resilience of staff who are doing this work. This might include keeping in regular contact with energy advisers, regular discussion of these issues in team meetings and providing access to sessions that are facilitated by well-being and resilience professionals.

6. **Flexibility:** Energy communities are likely to need to adapt plans as the work unfolds. Thus, it is preferable to have a dedicated and independent team working on energy solidarity projects, that can be agile and adaptive when needed. Over-reliance on other internal departments, or complicated internal approval structures, can reduce the ability of energy solidarity teams to work effectively.

7. **Volunteers:** Three of the CEES partners worked with volunteers to deliver aspects of their pilots. All three found that, although some progress was possible, working with volunteers was more challenging than had been hoped.

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8. **Data and monitoring:** A GDPR-compliant system for storing household data and monitoring the progress of households through projects is essential. While it is possible to do this in a spreadsheet, such as Excel, experiences in the CEES project suggest that it is worth investing in a dedicated Client Management System (CMS). CMS systems need to be set up with the requirements for future monitoring and reporting in mind.

9. **Risk management:** When energy advisers are working out of their office/home and especially when they are visiting clients' homes, it is essential to develop and implement a policy and protocol to assess risk and manage the health and safety of the energy advisers.

10. **'Safeguarding' for vulnerable people:** Similarly, it is important to develop and implement a policy and protocol for what an energy adviser should do if they feel that a vulnerable person that they have met in the course of their work (e.g. a child) is at risk of serious harm.

Funding energy solidarity work

Securing funding for energy poverty work is clearly a key requirement. Although most of the CEES partners had previously been successful in securing grant funding to support work on energy poverty, they agreed that it is important to develop a portfolio of funding sources. In particular, partners noted the value of securing funding that is not 'ring-fenced' for a particular project, and thus allows them to cover ongoing core costs, such as administrative support, and to fund the salaries of project managers and delivery teams between grant-funded projects. The following key points emerged:

1. **Entrepreneurial approaches:** Although fundraising can be a time-consuming and slow-burning activity, when they have the resources, energy communities are able to successfully develop and implement more entrepreneurial and creative approaches to funding energy solidarity actions. Of the approaches described below, it is grant funding and service contracts that have the most potential to cover the time costs of energy solidarity work.

2. **Microdonations:** One of the CEES partners, which is an energy supplier, already operates a successful microdonations scheme in which its energy customers have the option to add microdonations to support work on energy poverty to their bills. Three other CEES partners, that do not have energy customers, tried to set up such schemes in other contexts. However, for a range of reasons, none of them were successful. A conclusion of the CEES project is that, while microdonations schemes have potential when energy communities have their own customers, this is much less likely to be the case where energy communities do not have energy customers.

3. **Service contracts:** Two of the CEES partners were successful in securing sizeable service contracts for energy solidarity actions during the project, one with a public sector housing provider and the other with a private sector gas network operator. While both partners reported that it was time-consuming to develop these relationships, such service contracts clearly have significant potential for funding work on energy poverty.

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4. **Public donations (crowdfunding):** Two of the CEES partners implemented successful campaigns to secure public donations. These public campaigns required developing campaign branding and messages, setting up donation webpages and using a QR code in communications, largely via social media and posts in various relevant local newsletters. The sums that were raised through public donations were more limited than might typically be secured through grants or service contracts. Nonetheless, partners were able to use this income to fund important aspects of energy poverty work, such as small measures energy kits to give to households.

The ZEZ 'Ease their Troubles' public donation fundraising promotional video. Link to video.

ALIenergy public fundraising banner.

5. **Corporate donations:** Two partners successfully implemented campaigns to secure corporate donations. The most successful aspects of these campaigns were those that selected and targeted companies with corporate social responsibility (CSR) funds, and companies with links with energy (for instance, renewables installers) or with buildings (such as architectural practices). The sums raised were more limited than through grants and service contracts.

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Knowledge sharing

Knowledge sharing between the CEES partners was central to the project. The CEES project featured a range of activities to support knowledge sharing, including bilateral meetings between partners, monthly pilot progress meetings, face-to-face consortium meetings every four months, meetings with the evaluation team, ongoing sharing of plans and progress in documents and sharing of other documents (see full details in Chapter 4).

The evaluation shows that all of these approaches to knowledge sharing were highly valued by all of the CEES pilot partners. Notwithstanding the publication of the CEES Energy Solidarity Toolkit, it is important that key funders continue to support knowledge sharing among energy communities with respect to energy solidarity actions.

Identifying households in energy poverty

The CEES evaluation highlights a number of findings with respect to recruiting households into the pilot projects and assessing whether they were eligible for the projects.

Recruitment

In CEES, the pilots employed a number of different approaches to bringing householders to their projects. These can be divided into indirect approaches and direct approaches:
Indirect approaches involved working with external partners (and sometimes internal colleagues). These included: taking referrals from sector housing, healthcare and social care providers; taking referrals from other local organisations who are likely to already be in contact with households in energy poverty; working with municipalities to set up workshops within already-existing programmes of events for older people; and/or taking referrals from a broader internal energy efficiency advice service.
Direct approaches included: placing posters and leaflets around the neighbourhood in places where people in energy poverty were likely to see them (e.g. pharmacies, public health centres, libraries etc.); attending events that were set-up by other related organisations; setting up their own events; and placing notices in relevant newsletters. One partner even recruited participants by securing an appearance on a local TV breakfast show and two radio shows.

In two of the pilot projects, these processes particularly focused on older people, on the basis that older people are often more vulnerable to energy poverty than the general population. One of these pilots had additional eligibility criteria, while the other did not. Key findings on recruitment include:

1. **Context is key:** All of these approaches were successful to some extent. That said, since they were carried out in specific contexts, it is not possible to identify ways of doing this that are universally correct or incorrect. Experiences in the CEES project suggest that the ideal way to conduct this task will depend on the specifics of the local project and context. Nonetheless, the evaluation enables us to highlight several general points.

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2. **Getting the balance right:** In CEES, the partners experienced concern about whether their approach to this would bring either *too many* or *too few* households to the project. For instance, while appearing on local TV was a significant achievement for one project, this led to an immediate flood of enquiries which was very challenging to deal with. With this in mind, it is important to set up systems for a waiting list and for accurately advising households about what happens next and when.

3. **Partnerships and referrals:** The CEES pilot projects show how important partnerships and referrals are in this context. That said, across the pilot projects, setting up the partnerships and implementing referral systems took longer than expected. This was the case for both approaches that were conducted internally (e.g. taking referrals from internal advisers of broader energy efficiency advice) and approaches that required external partnerships. In both internal and external contexts, referrals were slow to come through initially, ineligible referrals were common and repeated briefings were required to improve things.

Assessing eligibility

Some of the pilot partners implemented processes for assessing eligibility. Criteria for eligibility included being in receipt of particular benefits, or income/pension below a certain threshold or age. In some cases, the project would not be able to tackle the problem that needed addressing (e.g. repairs to homes were not possible in most of the projects). Key findings include:

1. **Eligibility criteria:** It is important to design eligibility criteria that distinguish between households that are in need and households that are not, but that are also straightforward to implement, and not too difficult or off-putting for householders.

2. **Identifying households in need:** In some of the pilots, there was evidence that some of the participating households might not have been experiencing difficulties paying their energy bills (given that this was self-reported, it is also possible that participants were not willing to confirm that they were struggling). This was particularly the case in a pilot project that focused on older people but did not have any eligibility criteria. This reinforces the significance of how eligibility criteria are operated.

Alleviating energy poverty

The six CEES partners engaged with householders in telephone calls, home visits, workshops and ‘drop in’ events. In addition, four shared and supported self-renovation (3SR) projects, in which householders are supported by professional craftspeople and volunteers for their self-renovation projects, were implemented. Key findings include:

1. **Highly valued engagements:** Across all six of the CEES pilot projects, where evaluation was possible, these engagements were highly valued by participants. For instance, participants

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largely agreed that the engagement events were well run and suitable for them; participants also felt that the people who delivered the engagement events were respectful to them. Further, in most cases, participants agreed that they had learned useful information about using less energy and reducing their energy bills.

A Les 7 Vents 3SR renovation worksite.

2. **Reasons for success:** These successes were the result of the knowledge exchange, learning, good planning, flexibility/agility and training that were emphasised in CEES. In addition, some of the qualitative comments from participating households show that the approach of the delivery teams emphasised empathy, respect, taking time and care. These values are clearly very important to successful energy solidarity work.

3. **Impact and change:** Regarding impacts on energy poverty itself, it is important to note that changes over time cannot always be directly attributed to the pilot interventions alone. This is because factors such as seasonality and fluctuating energy prices, which might also have an impact on household energy use, cannot be controlled for within the context of the CEES evaluation. Relatively small sample sizes will have limited the potential for the tests to show statistically significant changes. Nonetheless, the evaluation data does show positive change among households in the medium to long term (between three and six months) following the interventions. For instance, in some cases, the ability to afford energy bills increased, while in others households' self-restriction of access to energy services (such as heating and cooking) decreased. In some cases, the negative impacts of energy poverty were reduced, for instance with respect to physical health or mental health.

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Fitting a draught excluder at a Green Energy Cooperative (ZEZ) home visit.

A Coopérnico workshop for older people.

4. **Limits to impacts:** Although these are positive findings, it is important to note what some CEES partners referred to as the 'sticking plaster' situation. Partners used this term to refer to the potentially limited and temporary impacts that some interventions, such as the provision of a 'crisis grant', can have within the context of great, growing and ongoing need.

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Repowering London, Beat the Cold roadshow event, 08-02-24, Moorlands Pantry.

4. **The ongoing responsibilities of governments:** The implication of this observation is that although energy communities certainly can and will help to alleviate energy poverty, broader action is also required. The causes of energy poverty in Europe are structural; that is, rooted in the structures of building fabrics, energy markets, labour markets and welfare systems. Therefore, the solutions to energy poverty are also likely to be structural. Hence, it is important for EU and UK policy-makers to understand that, although many energy communities stand ready and able to work on energy poverty, responsibility remains with European governments to address these more fundamental issues.

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2. The CEES project

2.1. Introduction

The Community Energy for Energy Solidarity[2] (CEES) team comprised six energy communities each of which implemented a CEES pilot project: ALIenergy (UK), Coopérnico (Portugal), Enercoop (France), Les 7 Vents (France), Repowering London (UK) and Green Energy Cooperative (ZEZ) (Croatia). In addition, the team included: REScoop.eu (the European association of energy communities, which focused on policy and regulation issues), EnAct (responsible for communications), The University of Birmingham (responsible for research, evaluation and conceptual development) and SNAP! (responsible for project coordination).

[2] The CEES project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972. The project commenced in June 2021 and ran to the end of August 2024.

The CEES team, London, December 2023.

2.2. Aim and objectives

The aim of the CEES project was to support the development of energy solidarity actions across the EU/UK. To put it succinctly, in the context of CEES, energy solidarity describes actions by energy communities to support households struggling with energy poverty in their local communities. This aim was underpinned by several objectives, the following being most relevant within the context of this evaluation report:

- To bring together six energy communities of various kinds that already work on energy solidarity in a variety of ways (these are described below) to each offer an existing mechanism[3] for energy poverty alleviation (these are referred to as case study mechanisms and are described below). To complement these with further promising energy poverty alleviation mechanisms from external energy communities.
- For the six energy communities to use these mechanisms as inspiration in support of the conception and development of six new energy solidarity pilot projects featuring one or more mechanisms. The six pilot projects are described in the pilot project chapters.
- For the six energy communities to implement the six energy solidarity pilot projects.

3 Within the CEES project and this evaluation report, the term 'mechanism' is used to describe the component parts that make up a project that is designed to alleviate energy poverty. To put this another way, any given energy poverty alleviation project will be made up of more than one mechanism.

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- To implement a variety of structures for ongoing mutual knowledge exchange and advice provision between the six ECs (also with input from the other three CEES partners) to support the implementation of the six pilot projects.
- Led by The University of Birmingham, to collaboratively design and conduct an evaluation of the six pilot projects, and to produce an evaluation report.
- To draw on the evaluation findings and other materials to produce and disseminate an Energy Solidarity Toolkit, designed to support other energy communities to develop and implement energy poverty alleviation projects.

2.3. Key terms

Further information about these definitions can be found in the Evaluation Framework document (on the CEES website).

Energy poverty

Drawing in particular on Day et al. (2016)[4], energy poverty is defined within CEES as

> *The situation in which households are unable to access affordable energy services (such as adequate warmth, cooling, lighting, and energy to power appliances), which underpin elements of human flourishing (such as health and well-being, relationships, social inclusion, employment, recreation and education).*

Energy communities

Within CEES, we define energy communities as:

> *Local collectives of individuals that tend to share values and ambitions relating to: supporting equitable, democratic and fair transitions towards more local, sustainable and efficient energy systems; establishing renewable and decentralised energy systems; assisting local community members with energy efficiency, demand reduction and energy poverty; or economic activity on energy for social and community benefit. These organisations are diverse in structure, size and scope.*

[4] Day, R. et al (2016) Conceptualising energy use and energy poverty using a capabilities framework, Energy Policy, 93: 255–264.

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Energy solidarity

As a general concept, energy solidarity has been defined during the CEES project as:

> *Actors willingly working in ways that align, on a shared goal of overcoming energy-related adversity that is experienced by one or more of the parties. Energy solidarity is inspired by empathy and / or a sense of justice, and may, but does not have to, involve reciprocal obligation. Stronger solidarity involves a more sustained commitment, and / or a willingness to incur a higher personal cost in pursuit of the shared goal.* (Day and Burchell, 2023)[5]

Within the specific context of the CEES project, energy communities working to alleviate energy poverty is understood as a form of energy solidarity. This form of energy solidarity can also emphasise:

- Recognising energy poverty as a serious and legitimate issue, and therefore engaging with people in energy poverty with respect and without blame.
- Creating and working with local networks of donors, volunteers and other professional and voluntary organisations to better aid those in the community who struggle with energy poverty.
- Maximising the potential for local work on energy poverty to bring other local benefits (for instance, training and employment opportunities for local young people).
- Working in local, regional, national and international knowledge sharing and collaboration networks on energy poverty.

2.4. Types of energy solidarity mechanism in CEES

Three key types of mechanism were identified in CEES and were used to structure the pilot projects and the evaluation report. These are as follows:

Fund

Fund mechanisms are employed to raise funds or income to fund work on energy poverty alleviation.

[5] Day, R. and K. Burchell (2023) Energy solidarity in Energy Communities: alleviating energy poverty and supporting just energy transitions through solidarity approaches. European Sociological Association RN12 mid-term and Energy and Society Network 6th international joint conference, 'Energy, Environment and Societies in Crises', 6-8 September 2023, Trento, Italy.

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Identify

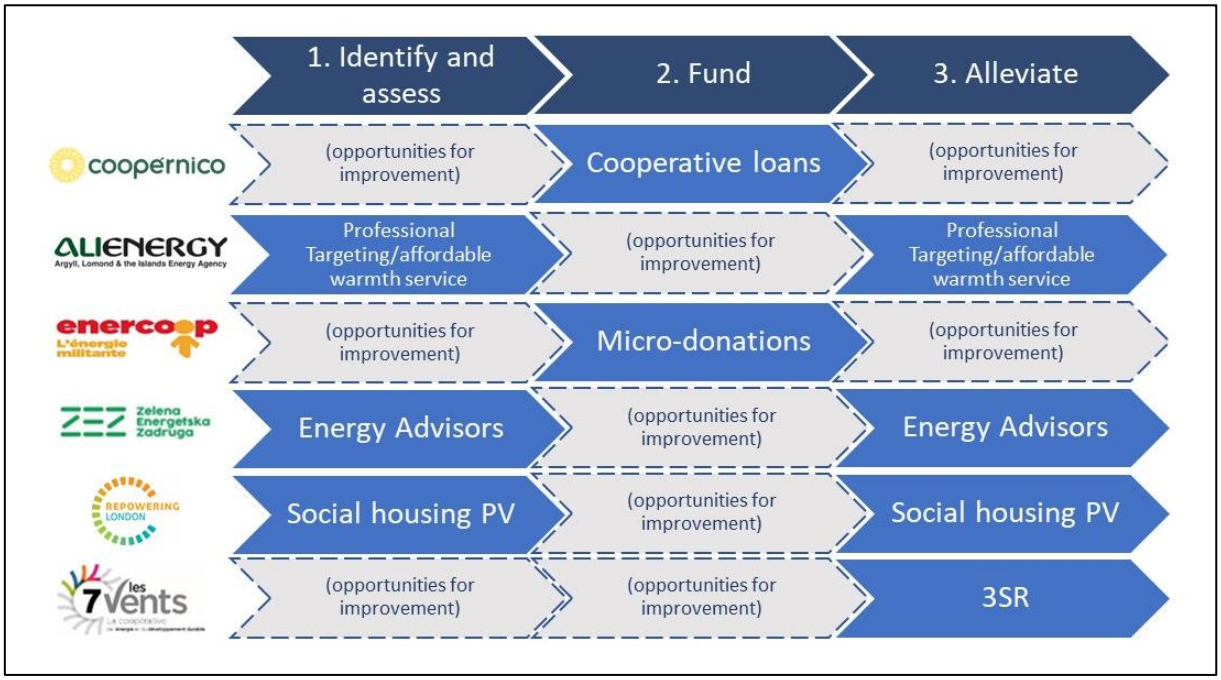
Identify mechanisms aim to seek out and identify households in energy poverty, recruit them to projects and assess their eligibility for projects.

Alleviate (soft and hard)

Alleviate mechanisms aim to alleviate energy poverty. 'Soft' alleviation mechanisms do this through household engagement, provision of advice about energy poverty, energy efficiency measures, the provision of energy kits consisting of a variety of small energy efficiency measures (such as window insulation material) and support applying for financial support. 'Hard' alleviation mechanisms alleviate energy poverty through building renovation, retrofitting and refurbishment. In CEES, hard alleviation was undertaken in one pilot project.

2.5. The six energy communities and case study mechanisms

Summary of the case studies



Summary of the six case study mechanisms that the partners brought to CEES.

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The case study mechanisms that the CEES partners brought to CEES are summarised in the above graphic and are described in more detail below. Please note that these are not the pilot projects that were implemented in CEES (these are summarised further below and described in detail in the individual pilot chapters).

ALIenergy

ALIenergy is a regional energy agency and registered charity. It is based in Oban in west Scotland, in the UK. Established in 2000, the organisation works to promote sustainable energy use and renewable energy generation, to address energy poverty and reduce carbon emissions. ALIenergy has worked on energy poverty for more than 20 years.

ALIenergy brought two case study mechanisms to CEES, from its well-established Affordable Warmth programme. The first, an Identify mechanism, is known as professional targeting. This involves developing a network of frontline workers – for example, working in health care, social care or housing – who refer households in need to ALIenergy. The second, an Alleviate mechanism, includes a wide range of advice and support, such as advice on using appliances and heating more efficiently, help with understanding energy bills, assistance with accessing government support schemes and liaising with suppliers.

Coopérnico

Coopérnico is based in Lisbon, Portugal, and was founded in 2013. It is the only renewable energy cooperative in Portugal and has more than 6,000 members. Coopérnico promotes the involvement of citizens in the energy transition through cooperative investments in PV plants for organisations (charities and SMEs) and through supporting members and local energy communities to install individual and collective generation systems for their own consumption. Tackling energy poverty has been among Coopérnico's aims for many years and it has been working directly on the issue since 2020. Several Coopérnico staff and members of the cooperative were trained as energy advisers as part of the EU Horizon 2020 POWERPOOR project (2020 to 2023).

The case study mechanism that Coopérnico brought to CEES was a Fund mechanism. This is a financial scheme by which Coopérnico's members contribute part of their savings on the cost of energy to provide low-cost loans to support charities and SMEs to install renewable energy infrastructure.

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Enercoop

Enercoop is a national French network of 12 renewable energy cooperatives located in the 12 French regions. Enercoop has 89,000 domestic clients. With 160 employees in the head office (and a further 280 across the network), Enercoop is considerably larger than the other CEES pilot partners. Enercoop was established in 2005 and is based in Paris.

Enercoop's case study was also a Fund mechanism. In 2008, Enercoop started Les Amis D'Enercoop to focus on environmental protection and energy poverty alleviation. One of Les Amis D'Enercoop's projects, Énergie Solidaire, allows Enercoop's customers to make microdonations through their bills to support work to alleviate energy poverty.

Green Energy Cooperative (ZEZ)

Based in urban Zagreb, Croatia, Green Energy Cooperative (ZEZ) assists citizens in the development of, investment in and use of renewable energy sources. ZEZ had previous experience of operating a team of energy advisers to offer energy advice to people in hardship.

This work is the case study mechanism that ZEZ brought to CEES. Energy Advisers is a programme to help young graduates or long-term unemployed to train and qualify as energy advisers, and then provide tips and advice on energy efficiency to homeowners.

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Les 7 Vents

Based in rural Normandy, France, Les 7 Vents provides individuals and organisations with advice and support for projects on energy transitions and sustainable lifestyles. Les 7 Vents has a team of 10 energy advisers who work with households on energy efficiency, largely through home visits. The area in which Les 7 Vents works is characterised by many residential buildings that are constructed using earth and are very inefficient with respect to heating loss. In combination with the precarious livelihoods that are common in this rural and relatively remote area, this leads to widespread energy poverty.

The case study mechanism that Les 7 Vents brought to CEES is called Hands for Homes. This mechanism promotes and refers householders to Enerterre, an organisation that specialises in shared and supported self-renovation (3SR). These are practices that enable energy-poor households to engage in energy efficiency refurbishment of their homes at a lower cost, by working collaboratively with local tradespeople, volunteers and other householders.

Repowering London

Working in urban London, Repowering London is a not-for-profit company that specialises in the co-design and co-production of community-owned renewable energy projects and advocating for change to support a just transition to net zero. Repowering London has a strong track-record of in-depth engagement with households, including households in energy poverty, and the involvement of local citizens in the co-creation and co-delivery of its projects.

The case study that Repowering London brought to CEES is a set of Identify and Alleviate mechanisms – raising awareness of energy poverty, identifying people in energy poverty, training new advisers and delivering energy poverty advice and services – that emphasise in-depth community engagement and community-building.

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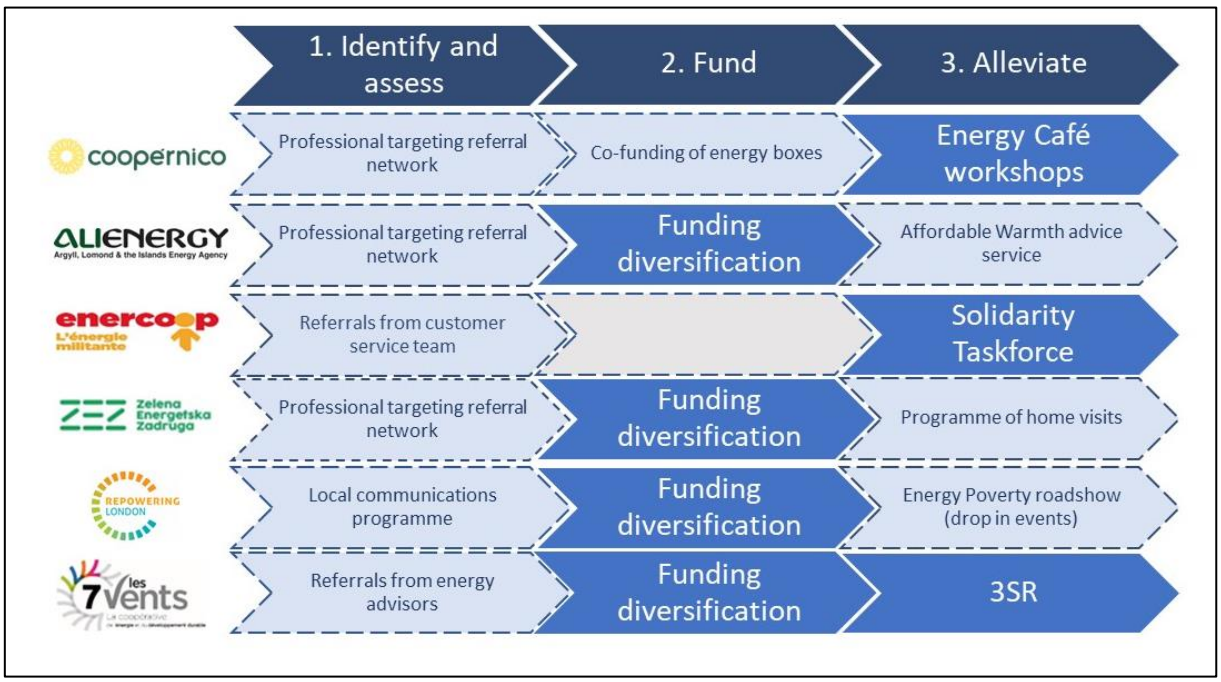
2.6. Introduction to the six CEES pilots

The six CEES pilot projects are introduced in the following graphic. For each pilot, the main CEES mechanism is shown in dark blue and additional mechanisms that were evaluated are shown in light blue. In addition to these six CEES pilot projects, a further project by Repowering London was also evaluated using the CEES evaluation methods and materials (see Chapter 10).



Graphic representation of the six CEES energy solidarity pilot project mechanisms.

Fund

The key approaches to funding that were examined within CEES were: microdonations; service contracts; corporate donations (often within a Corporate Social Responsibility context); public donations; and grant funding. These approaches are described in detail in the pilot chapters (Chapters 5 to 11).

Identify

The key approaches to identifying people in energy poverty that were employed within CEES were: referrals from local organisations that already work with people who are likely to be in energy poverty; referrals from other internal departments; and communications via social media and newsletters. These approaches are described in detail in Chapters 5 to 11.

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Alleviate (soft and hard)

'Soft' energy poverty alleviation mechanisms included household engagement, provision of advice about energy poverty, energy efficiency measures, the provision (and sometimes installation) of energy kits and support applying for financial support. These activities were undertaken in workshops, drop-in sessions, home visits, telephone calls, and in-depth engagement featuring multiple home visits. The 'hard' alleviation mechanism in CEES was shared and supported self-renovation (3SR). These approaches are described in detail in the pilot chapters (Chapters 5 to 11).

Several of the CEES pilot projects included recruitment of and training for energy advisers. These activities have been evaluated as part of the Alleviate mechanisms.

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3. Evaluation methodology

This section summarises the full Evaluation Framework, which is available on the CEES website.

3.1. Evaluation aims

1. To gain and share formative[6] and summative[7] understanding and learning with respect to the following *processes*[8] in the pilot projects, as appropriate:
    a. The pilot mechanisms: Fund, Identify, and Alleviate
    b. Project management by project managers
    c. Collaboration with local stakeholders/partners by project managers (typically, as part of Identify mechanisms).

2. To gain and share formative and summative understanding and learning with respect to the *impacts*[9] of these processes (mechanisms) on, as appropriate:
    a. Households
    b. Project managers
    c. The six energy communities, as organisations (including the longer-term legacy of the pilot projects)
    d. Trainees
    e. Energy advisers
    f. Local partners/stakeholders[10].

[6] Formative evaluation is undertaken during a project. It is the process of providing feedback to project teams so that projects can be developed and enhanced while they are in progress.
[7] Summative evaluation is undertaken before, during and after the implementation of a project or a part of a project. In summative evaluation, reporting takes place *after* the implementation of the project.
[8] A process evaluation focuses on understanding what worked well and what could have worked better in terms of the *processes* that were employed in the project. Process evaluation can also examine the governance, structure and resourcing of projects as well as significant external factors, such as the 'energy crisis'.
[9] An impact evaluation provides information about the impact, outcomes or changes produced by an intervention - positive and negative, intended and unintended, direct and indirect.
[10] These are the local partners/stakeholders with whom each pilot project management team collaborates to implement their pilot project.

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3.2. Evaluation principles

1. To act as a *critical friend* to the pilot projects, providing formative feedback during the course of the pilots to help the pilot projects to be the best they can.
2. To conduct a 360° evaluation that draws on a range of different categories of voices. In CEES, these voices or sources of information are those listed under Aim 2 above.
3. To employ consistent evaluation methods and tools across the six pilot projects, as appropriate.
4. To balance the need to gather rigorous evaluation data and the need to avoid overburdening the project teams and/or householders (especially considering that householders in energy poverty may have other vulnerabilities).
5. To work within an appropriate ethical framework with respect to participant informed consent, data management and storage, anonymity in reporting, energy adviser health and safety, and participant safeguarding. Ethical review and approval were provided by the University of Birmingham research ethics committee. Full details of the CEES evaluation ethics framework can be reviewed in the CEES Evaluation Framework on the CEES website.

3.3. Evaluation objectives (EOs) and questions

Introduction

In this section we describe six key evaluation objectives (EOs) and within these, a number of evaluation questions relating to each EO. In doing so, we mention some of the indicators that helped to answer the questions. It is important to note that:

- Not all of the EOs were relevant to all of the pilot projects and not all of the questions were answerable in all of the pilot projects.
- Across the questions, some were answered using quantitative data, some using qualitative data and some using a combination. Evaluation methods and data are discussed in more detail in section 3.4 below.
- As per the overall aims of the CEES evaluation, across all of these EOs, the objective is to derive practical learning that can be shared with other energy communities.
- Although EOs 2-4 are organised by Process and Impacts/outcomes, these categories are often interdependent and difficult to separate in evaluation practice.

EO1: To give an overview of each pilot and describe the organisational context in which it is being implemented.

1. What type of organisation is each organisation (e.g. charity, not-for-profit company)?
2. What is the brief history of each organisation?
3. What areas of activity does each organisation work in?

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4. Briefly, what is the structure of each pilot project in terms of its mechanisms?
5. How is each pilot project structured, governed and resourced within the organisation?

EO2: To understand the processes in and impacts of the Fund mechanisms.

1. Processes
    i. What were the pre hoc plans for the implementation of the Fund mechanisms? For instance, what types of fundraising were planned?
    ii. What successes and challenges were experienced in the implementation of these planned Fund mechanisms?
    iii. What responses in implementation were made to the challenges and what subsequent successes and challenges were experienced?
    iv. How can these processes be developed further?
2. Impacts/outcomes
    i. How much money was raised through each fundraising activity (in absolute terms and over time)?
    ii. For each approach, what are the relationships between the resources and time needed for research and set-up, the amounts raised and the longer-term potential of the approach?

EO3: To understand the processes in and impacts of the Identify mechanisms

1. Processes
    i. What were the pre hoc plans for the implementation of the Identify mechanisms? For instance, as appropriate, what were the plans for public communications, local partner/stakeholder collaboration, the assessment of eligibility for the project?
    ii. What successes and challenges were experienced in the implementation of these planned Identify mechanisms?
    iii. What responses in implementation were made to the challenges and what subsequent successes and challenges were experienced?
    iv. How can these processes be developed further?
2. Impacts/outcomes (N.B. these questions will be answered in different ways depending on the details of each Identify mechanism)
    i. Where appropriate, approximately how many households were reached through the communications?
    ii. How many households entered the eligibility assessment? How many households were successful in the eligibility assessment? How successful were the communications in terms of attracting eligible households?
    iii. How many eligible households were recruited into the project? What attrition took place during the Identify mechanism? What were the reasons for this?

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EO4: To understand the processes in and impacts of the Alleviate mechanisms.

1. Processes
    i. What were the pre hoc plans for the implementation of the Alleviate mechanisms? For instance, as appropriate: does the mechanism focus on home visits, telephone consultations, workshops or a combination; what other processes are key to the mechanism; does the mechanism involve training; what partner personnel are involved in the mechanism delivery, are these also the project managers; is there local partner/stakeholder collaboration?
    ii. What successes and challenges were experienced in the implementation of these planned Alleviate mechanisms?
    iii. What responses in implementation were made to the challenges and what subsequent successes and challenges were experienced?
    iv. How can these processes be developed further?
2. Impacts/outcomes
    i. Households
        a. How many households participated in the Alleviate mechanisms?
        b. What household attrition took place during the implementation of the Alleviate mechanism? What were the reasons for this?
        c. What were the households' experiences of the Alleviate mechanisms? For example, did they feel respected?
        d. What were the impacts of the Alleviate mechanisms on households' ability to pay energy bills, households' self-restriction of access to energy services and the impacts of energy poverty?
        e. What were the experiences of households with respect to energy solidarity (e.g. perception of empathy, community support)?
        f. What were the impacts of the Alleviate mechanisms on household attitudes, levels of confidence, learning and the acquisition of knowledge and know-how?
    ii. Trainees and training
        a. How many trainees signed up for the training? What trainee attrition took place, if any? What were the reasons for this?
        b. What were the experiences of the trainees in the training?
        c. What were the impacts of the training in terms of confidence, learning, skills and capability?
        d. In what ways could the training be enhanced?
    iii. Energy advisers
        a. How many energy advisers were there? What energy adviser attrition took place, if any? What were the reasons for this?
        b. What were the experiences of the energy advisers when they were delivering the Alleviate mechanisms?

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c. What were the impacts on energy advisers' confidence, skills and know-how, CV and employability?
d. What were the experiences of energy advisers with respect to energy solidarity (e.g. working in partnerships, understanding more about energy poverty)?

iv. Local partners/stakeholders
a. Who were the local partners/stakeholders?
b. What roles did they play?
c. What were the experiences of the local partners/stakeholders?

EO5: To understand the processes in and impacts of the CEES processes for knowledge sharing and problem-solving among the project partners.

1. What were the CEES processes for knowledge sharing and problem-solving among the project partners?
2. In what ways did the CEES processes for this support the development and implementation of the pilot projects?
3. How can these processes be replicated among other energy communities?

EO6: To understand the processes, impacts and legacies for the six CEES ECs.

1. What successes and challenges were experienced in the implementation of the pilot projects at the organisational level?
2. What responses in implementation were made at the organisational level to the challenges, and what subsequent successes and challenges were experienced?
3. What were the impacts of the pilot projects on the six energy communities in terms of learning, capability, capacity, confidence, knowledge and know-how about energy poverty and delivering energy poverty alleviation projects?
4. What were the experiences of and impacts on the six energy communities with respect to working in energy solidarity (e.g. working in partnerships), and building solidarity networks between other parties?
5. How sustainable are these impacts? What are the longer-term legacies of the CEES pilot projects? What elements of the CEES pilot projects will continue in the future?

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EO7: To understand the impacts and legacies for the local partners/ stakeholders, where appropriate.

1. What were the impacts of the pilot projects on the local partners/stakeholders in terms of learning, capability, capacity, confidence, knowledge and know-how about energy poverty and delivering energy poverty alleviation projects?
2. What were the experiences of and impacts for local partners/stakeholders with respect to energy solidarity (e.g. working in partnerships, understanding more about energy poverty)?
3. How sustainable are these impacts for local stakeholders? What are the longer-term legacies of the CEES pilot projects for the local partners/stakeholders? What elements of the CEES pilot projects will continue in the future?

3.4. Evaluation methods

The evaluation aims and objectives were addressed through a mixed-methods evaluation design. For more information about how these evaluation methods were implemented, please see the full Evaluation Framework on the CEES website. One important aspect of the methodology to note here is that the household surveys were implemented by the pilot teams directly with households (in the context of telephone calls, workshops or home visits).

Qualitative interviews

Four qualitative interviews were carried with each pilot partner team over the course of the pilots (December 2022/January 2023, May 2023, September/October 2023 and January/February 2024). These followed well-established methods for semi-structured interviews.

Surveys

A range of surveys were implemented, as appropriate to the pilot, addressing households, trainees, energy advisers and local partners/stakeholders.

Households

- A ‘baseline’ survey was carried out before the pilot interventions, examining indicators of energy poverty and levels of knowledge and knowhow about energy-related matters.
- An ‘engagement’ survey, examining participant experiences, participant satisfaction and immediate impacts (for instance, on energy knowhow) was carried out at the end of the main engagement with each household.

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- A ‘follow up’ survey was administered six to twelve months after the ‘baseline’ survey. This repeated the questions from the ‘baseline’ survey and contained further questions about longer term experiences and impacts.

Energy adviser trainees

- A ‘trainee’ survey was completed by energy adviser trainees after the training events, which examined changes in learning and confidence as a result of the training.

Energy advisers

- An ‘energy adviser’ survey was completed by energy advisers after they had completed sufficient work as energy advisers, addressing experiences and perceptions of the project.

Local partners/stakeholders

- A ‘local partner’ survey examined the experiences and perceptions of local partners (most often as participants in a professional targeting referral network).

Documentary sources

A range of documentary sources were used in the evaluation, including pilot project plans, pilot project presentations slides and reports, partner websites and pilot monitoring records (for example, of numbers of participants and income generated).

Informal information gathering

Information for the evaluation was also gathered in informal settings, such as: face-to-face consortium meetings (every four months); online fortnightly team meetings; online monthly pilot progress meetings; online one-to-one meetings; and through email communication.

3.5. Data analysis

Comparisons of ‘baseline’ and ‘follow up’ household survey data

Differences between the ‘baseline’ survey data and the ‘follow-up’ survey data were examined using the *Related-samples Wilcoxon signed-rank test*, with a confidence level of 90% required to establish statistically significant changes. A confidence level of 90% was employed, rather than the standard 95%, because the sample sizes for analysis were relatively small (ranging from 12 to 50). Matched pairs of survey responses (‘baseline’ and ‘follow-up’) were achieved by attributing a unique ID number to each household.

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It is important to note that any changes between the 'baseline' and 'follow-up' surveys cannot be unproblematically attributed to participation in the pilot projects. This is because changes could also be influenced by other factors, such as seasonality and changes in energy prices, which could not be controlled for.

Other surveys

Other surveys were analysed using frequency data.

Qualitative interviews with pilot managers

The qualitative interviews with pilot managers were analysed using NVivo software. The analysis was carried out with the objective of answering the set of relatively functional evaluation questions outlined earlier. The analysis broadly followed the key principles of thematic analysis[11], with themes derived from the evaluation questions applied deductively.

3.6. Challenges with data collection

The evaluation methodology described above presented challenges for the pilot managers and pilot delivery teams in terms of the time required to undertake tasks, such as participate in interviews, administer surveys, provide monitoring data, respond to queries and review draft material.

Of these evaluation tasks, by far the most challenging was implementing the household surveys directly with participating households. This was a very time-consuming activity for pilot managers and delivery teams. Some partners felt that this was particularly a problem because '*time spent on the surveys is not time spent on alleviating energy poverty*'. In addition, some members of the delivery teams commented that some of the questions in the survey were overly complicated, especially considering the vulnerabilities of some of the respondents. It was also suggested that some of the questions were irrelevant to many of the respondents (even though all of the questions offered a 'Not applicable' response).

From the perspective of the evaluators, there were two issues that contributed to the above difficulties. First, for the purposes of the project, the surveys had to be standard across the project and therefore the same for all pilots, despite the pilots being quite varied in terms of their content and geography (for instance, urban and rural areas) and climatic context (for instance, northern Scotland and Portugal) in which they were implemented. Second, in the context of the CEES project, the data collected was

[11] For example, see Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3 (2). pp. 77-101.

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intended to contribute to published research articles and not only to an evaluation report. This meant that the data needed to be more comprehensive than might have been satisfactory in a straightforward evaluation. Nonetheless, these challenges prompted the evaluators to revise one of the surveys to offer a simpler version. The evaluators have also considered further ways in which this challenge might have been lessened, for example, the evaluators could have had more direct contact with the teams delivering the surveys, which was not the case in most of the pilots.

These challenges reiterate the important principle in evaluation to maintain a balance between gathering as much useful data as possible, and not overburdening the project management and delivery teams and the participants. Having said all of this, the comments below also highlight the ways in which the evaluation was appreciated by the CEES pilot partners.

3.7. Other feedback on the evaluation

Although there were challenges for the pilot teams in the implementation of the evaluation, the comments of the teams also show that the evaluation process and outcomes are valuable.

ALIenergy

> *'Gathering some of the evaluation data was an onerous task, requiring extra time and work for both advisors and clients. We would never want to be gathering data just for the sake of it. However, we believe that this has been a very worthwhile exercise. Surveys were well designed, and the resulting statistics clearly demonstrate the value of our service, providing evidence to funders and other stakeholders that our service is well run and effective. If this helps us to access more funding, allowing us to assist more people who are struggling to afford their energy costs going forward, then it is well worth the effort.'*

Repowering London

> *'Thank you so much, it's always nice to chat through our work and how it's going. You're so good at pulling out some clear narratives from everything that's going on. It helps to structure my own thinking about how it's gone too, so thank you for that.'*

ZEZ

> *'Thank you, I really feel that you are on my team here.'*

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4. Knowledge exchange in the CEES pilots

4.1. Introduction

Knowledge exchange among the CEES project partners was a very important activity in the CEES pilot project plan. This activity was key for the objectives of:

- Where appropriate, implementing CEES case study mechanisms in new contexts in the CEES pilot projects.
- Ongoing mutual support in the development and implementation of all the CEES pilot project mechanisms[12].

In addition, as was discussed in Chapter 2, knowledge exchange was included within the concept of energy solidarity, as it applies to the work of energy communities on energy poverty alleviation, in the statement that energy solidarity implies, '*Working in local, regional, national and international knowledge sharing and collaboration networks on energy poverty.'*

4.2. Knowledge exchange activities in CEES

Knowledge exchange activities between CEES partners took several forms:

- Bi-lateral and multi-lateral meetings on particular topics (e.g. funding). These took place online, and in-person at consortium meetings.
- The preparation and sharing of CEES case study action plans and CEES pilot project action plans.
- Monthly online progress meetings (from January 2023 to March 2024) in which individual pilot partners shared their progress, successes and challenges with the CEES team (including the evaluation team), and the CEES team provided support and insight.
- Fortnightly CEES team meetings, at which some pilot project-related knowledge exchange took place, among other CEES project business.
- Broader bi-lateral and multi-lateral meetings at face-to-face consortium meetings and in *ad hoc* online meetings.

[12] Knowledge exchange was also central to the implementation of the CEES Energy Solidarity Capacity Building programme for a group of further energy communities that were not CEES partners. The outcomes of this CEES activity are reported in CEES Deliverable D6.4.

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- Knowledge exchange of *formative* benefit to the pilot development and improvement which took place in the formal evaluation interviews (described in Chapter 3).

4.3. Pilot partners' experiences of the knowledge exchange activities

The comments on this issue were universally positive. While this is perhaps to be expected with respect to being the beneficiary of knowledge exchange, some of the comments also touched upon the value of being *providers* of useful knowledge to other partners. The following interview quotes offer a flavour of these comments. They illustrate the extent of the knowledge exchange between multiple partners, provide specific examples of how knowledge exchange helped and underline the rationale for funders to continue supporting knowledge exchange.

ALIenergy

> *Well, it's been really fantastic to have the opportunity to talk to the partners and learn from them, exchange information with them. One of our objectives for the project is to expand our range of different types of fundraising, and so this is kind of a new thing for us, because we've always been dependent on grants. So it's been really, really good to be able to have time and opportunity to discuss different kinds of fundraising with people through the CEES project. Not all of the mechanisms that we have explored have been directly transferrable to ALIenergy. However, it has been inspiring to hear about how it works for some of the other partners, and to perhaps modify those mechanisms, think in a fresh, new way about how we can apply those mechanisms in ALIenergy.*

Coopérnico

> *ZEZ sent us a handbook for energy advisers, and we went through it, and that was an inspiration for our presentation at the Energy Cafe workshop. I think we also did that with Repowering, the suggestions for keeping everything warm and other tips. ZEZ also gave us very nice tips about the energy box [a box of energy saving devices] she had. We also had very productive conversations with Les 7 Vents at the Paris meeting, they told us about a game that they use, and we actually translated it into Portuguese and printed it, and we have some like cards for a really cool game now that we can use in workshops. They also gave us a lot of tips on how to engage and deal with the householders. For example, talk about the positive things first and try to highlight that when you get in the home, "Oh, I see you are using this or that, did you know that you can also do this?" Instead of saying, "You are doing that wrong or that wrong.". I liked it, it's good to make use of the accumulated knowledge that the organisations already have, and it's not like theoretical knowledge but practical knowledge.*

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Enercoop

Yeah, Repowering London and ALIenergy actually did help us, we had a dedicated session in Paris, in the consortium meeting, so I spent, I don't remember how much time it was, it might have been one hour or 30 minutes with each of them. What I got from them, especially with ALIenergy, that I was interested to have their insight because it's really close to what we want to do, even if it's a little bit wider. It was really useful to see the range of advice and interventions that they provide to their customers. We are not intending to take it all at once, but some are good ideas, for when we need new ideas or new missions, we can get inspiration from that.

Green Energy Cooperative (ZEZ)

Yes, it was all about knowledge sharing and exchange. I have had a meeting with Coopérnico, giving him some advice, because our activities with reaching the energy poor households, was maybe a bit sooner than their activities in interreacting with them. So, we have talked about criteria for who is energy poor and who isn't, and about energy efficiency packages, what they consist of in ZEZ. Also, I have sent them a PDF version of our Energy Advisers Handbook, which I think they found also useful. We have also had a meeting with Enercoop, regarding micro donations. He sent me a great example of a contract that they have had when they were approaching possible partners. Yeah, I basically see every meeting as some kind of knowledge exchange where we update each other. It really is a knowledge exchange when we see examples of activities that went well somewhere, and why they went well. Of course, if some activities didn't go as well as planned, what were the challenges? So, maybe we could try to avoid similar challenges that we might come across. So yes, I would say there were a lot of learning exchanges.

Les 7 Vents

I shared this with Coopérnico. When you come to events with, 'I am the government,' or, 'I am an agency and I have things to tell you,' it doesn't work. It never works. People just stay closed, and they will just listen, and they won't tell you what they think. The solution I found is that when you arrive in the room, at the beginning, you say, "You will help me if you give me information and you make me see this subject under another light." This just makes people think that they are at the same level as you, and they will feel like it is okay, they can share, they can help. When I met Coopérnico again in Athens, he told me, 'I tried this, and it worked very well.' I was really happy. I really like it when you know your experience can be useful to another person. It's like a chain. You give something and this person will give this thing to another one.

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5. ALIenergy

5.1. Summary (EO1)

The evaluation report addresses the following mechanisms.

The new CEES mechanism

1. **Fund:** Funding diversification, including microdonations (inspired by Energie Solidaire)[13] and other approaches. The funding secured through these activities allowed ALIenergy to implement further mechanisms in a new area (the Highland region of Scotland).

Additional mechanisms

2. **Identify mechanism:** Prior to CEES, ALIenergy had a long-standing and successful referral network, consisting of other public and third sector organisations, in its established areas in the west of Scotland. The new work in the Highland region required ALIenergy to set up a similar referral network in the Highland region.

3. **Alleviate mechanism**: Prior to CEES, ALIenergy also had a long-standing and successful energy poverty advice service, known as the Affordable Warmth programme, in its established areas in the west of Scotland. Within this programme, advice was largely provided in home visits. Implementing the new Highland Affordable Warmth programme required:
    a. Recruiting and training a new energy advisor team to work in the Highland region.
    b. Developing new work practices for remote implementation in the energy crisis.
    c. Implementing the Affordable Warmth programme in a new area.

[13] The Energie Solidaire microdonations approach allows energy customers to make microdonations as part of their energy bills.

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Evaluation summary

Fund

The core objective of ALIenergy's CEES pilot project was to diversify its portfolio of funding sources beyond grant funding. Inspired by Enercoop's Energie Solidaire microdonations approach[14], ALIenergy began by exploring microdonations. It was not possible for ALIenergy to implement a microdonations approach, largely because it does not have customers. Nonetheless, this work inspired ALIenergy to investigate other sources of funding and the objective of diversifying funding has been achieved in the short term. During the CEES project, to May 2024, ALIenergy raised a total of €213,800[15]. This comprised €1,442 from public donations, €2,738 from corporate donations, €201,250 from a public sector service contract and €7,371 in the form of referral fees. Longer-term plans for funding diversification are also in place, including collaborating in a charity shop that opened in May 2024 and partnerships with local renewables developers. ALIenergy noted that all of these approaches to fund raising are time-consuming to implement.

Alleviate

One of the new funding streams, service provision, enabled ALIenergy to expand the provision of its well-established Affordable Warmth energy poverty advice service from the west of Scotland into the Highland region of Scotland. This new work in the Highland region was evaluated as part of the CEES evaluation. The programme consisted of the provision of energy advice (on the telephone and in home visits) and support to access 'crisis grants'. This required setting up a new referral network, the recruitment and training of three new energy advisors and the development of new working practices. Although there were some challenges along the way, qualitative and quantitative data from the project managers, the three new energy advisors, participating households and a senior manager in the referral network confirms that ultimately all of these tasks were implemented successfully. Between November 2022 and May 2024, in the Highland region, ALIenergy provided energy advice to 1,348 households and secured crisis grants to a value of €322,115 for 1,036 households.

Due to external factors – for instance, seasonal variations in household energy consumption and changing energy prices – It is important to be cautious about attributing change within households entirely to any intervention. Nonetheless, the evaluation shows a range of positive changes for households in the months following their engagement with the Highland Affordable Warmth programme. In particular, the evaluation highlights reduced household difficulties with paying energy bills, reduced household self-restriction of a range of energy services and increased household

[14] This approach allows energy customers to pay a microdonation as part of their bill to support work on energy poverty.
[15] Sterling equivalents have been converted to Euros at £1/€1.15.

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knowledge and understanding of ways of reducing energy consumption and costs. Despite the important caveats, there are certainly indications that the Highland Affordable Warmth programme produces positive impacts for households. ALIenergy stressed the importance of working with households to fully understand and optimise their home energy situation to improve resilience to energy poverty, addressing both short-term and long-term challenges. At the same time, ALIenergy itself referred to some of the crisis interventions provided through the programme as 'sticking plasters' – that is, a short-term solution only – in a time of very high and ongoing levels of energy poverty.

The legacy of ALIenergy's CEES pilot project is that it now has a very entrepreneurial approach to fund-raising that is likely to enhance its ability to sustain and grow its energy poverty services in the future. In addition, the legacy of the pilot project is that ALIenergy has successfully extended the geographical reach of its Affordable Warmth programme across the Highland region of Scotland.

5.2. Introduction

About ALIenergy (EO1)

ALIenergy is a regional energy agency and registered charity. It is based in Oban in west Scotland, in the UK. Established in 2000, the organisation works to promote sustainable energy use and renewable energy generation, to address energy poverty and reduce carbon emissions. ALIenergy has worked on energy poverty for more than 20 years, through its Affordable Warmth programme.

Prior to CEES, ALIenergy's work covered a large area in west Scotland that is largely rural, sparsely populated and often very remote and inaccessible. These characteristics make service provision very challenging. In addition, demand is very high; in 2023, Energy Action Scotland estimated that 50% of households in this area were living with energy poverty[16]. These high levels of energy poverty are largely due to a housing stock that is typically off-gas (necessitating the use of more expensive fuels) and of relatively poor quality, as well as precarious livelihoods throughout the region.

The ALIenergy pilot

As described above, the ALIenergy CEES pilot project comprised a Fund mechanism, an Identify mechanism and an Alleviate (soft) mechanism.

The timescales for ALIenergy's pilot activities are shown in Table 5.1.

16 To produce this estimate in 2023, Energy Action Scotland extrapolated data from the Scottish Government's Scottish Housing Conditions Survey: 2019 (2019 is the most recent year for which data is available at the Local Authority level).

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	2022			2023				2024	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Funding diversification (Fund)									
Setting up new Highland referral network (Identify)									
Training and developing new work practices (Alleviate).									
Delivering the Highland Affordable Warmth programme (Alleviate)									

Table 5.1: Timescales of the ALIenergy pilot project.

Organisational structure

The Funding diversification element of the ALIenergy pilot was managed by the Chief Executive Officer of ALIenergy. The new Highland Affordable Warmth programme was managed by the Chief Operations Officer who already managed the existing programme in the west of Scotland. The new Highland Affordable Warmth programme was delivered by three energy advisors who were recruited and trained for the purpose (see below).

5.3. Funding diversification (EO2)

Introduction

'It is like building a house on a rock instead of sand' (ALIenergy).

Prior to CEES, ALIenergy had a longstanding and successful funding strategy through applying for competitive grants (such as the CEES funding). Despite the success of this approach, ALIenergy was keen to diversify its funding portfolio for the following reasons:

- It is often difficult to fund core costs through grant funding.
- Grant funding is typically relatively inflexible; it needs to be spent within specific time periods and on specific activities.
- Different grant schemes bring widely varying approaches to reporting, which can also be time consuming.
- It can be challenging to provide stability for staff based on grant funding.

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In response to these challenges, ALIenergy implemented a range of funding diversification activities. While this work began with investigating the Énergie Solidaire microdonations approach, it also included implementation of other approaches. Each of these is described in the following sections, along with its successes and challenges.

Microdonations

Process

ALIenergy was initially inspired by the Énergie Solidaire microdonations scheme (Enercoop's case study mechanism), in which Enercoop's energy customers have the option to make microdonations, through their energy bill payments, to support work on energy poverty. Thus, ALIenergy began its work on funding diversification by exploring its own options for setting up a microdonation scheme. Unlike Enercoop, ALIenergy does not have its own energy customers. For this reason, ALIenergy explored options with local, regional and national (in Scotland) businesses in a number of sectors. Within this model, the idea was that customers of these businesses would make micro-donations to ALIenergy on top of their payments to the business. In addition, ALIenergy investigated the technical and contractual aspects of several microdonations software platforms.

Challenges

A number of challenges soon became apparent. Setting up a microdonations scheme requires significant and off-putting technical input for both the recipient of the donations (ALIenergy) and the third-party organisation through which the donations are made. Smaller companies also had relatively small numbers of customers, thus limiting the potential of the approach. Finally, while regional and national companies might have been able to handle this technical work and offer sufficient customers, they were put off by the geographical mismatch between their own areas of operation and ALIenergy's.

As ALIenergy itself put it:

> *'The micro-donation mechanism sounded at first really inspiring and hopeful for us. When we explored it in a little bit more detail, it became clear that actually it's quite complicated and it would require quite a lot of background work, not just bringing in partners who would have to commit to it and do a fair bit of work themselves, but also technical background as well. So, it became obvious that this might not work within the CEES timescale, and it might not work in the rural setting as well when we're looking at small businesses that are limited geographically, rather than larger ones with many, many different customers.'*

Outcomes

Although the micro-donations approach did not work in the way that had been hoped, the work on this opened up new ways of thinking about funding and encouraged ALIenergy to investigate other options. As ALIenergy stated:

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'It got us into a different mindset, it sort of made us escape from the grant-funding mindset a bit, and it gave us the incentive to start contacting potential funding sources directly, and just exploring the opportunities for different kinds of donations, which has been quite successful, particularly in one instance where we have succeeded in bringing in a significant amount of money. So, we're really happy to have been kind of helped onto that new path for fundraising.'

Public donations

Process

Alongside its early work on microdonations, ALIenergy also started work on securing public donations. Over time, this work comprised:

- Setting up a 'Donate' button on the ALIenergy website. The 'wonderful.co.uk' platform was chosen for this because it is easy to use and inexpensive.
- Creating a QR code linking to the 'Donate' button and using the QR code in email signatures, newsletters, event banners, large banners in public places (see photo) and in social media.

ALIenergy banner showing the donations QR code.

Challenges

ALIenergy experienced the following challenges in its work on public donations:

- ALIenergy felt uncomfortable about setting up a system for public donations during a 'cost of living crisis'.
- Investigating the best donations platform (especially with respect to charges) was time-consuming but ultimately not too onerous.
- Maintaining a strong social media presence was time-consuming and challenging in the midst of very high levels of demand for services.
- It was challenging to encourage donors to move from one-off donations to regular donations.

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Outcomes

A number of positive outcomes can be identified with respect to public donations. ALIenergy raised €1,442 through public donations to May 2024 (this included one significant public donation from a collection at a local funeral). Although further developments are not ruled out, ALIenergy reports that it now has a robust set of processes for public donations and has noted that the public donations are of great value because they provide an income stream that can be used flexibly across its energy poverty activities.

Donations and funding from organisations

Process

ALIenergy also established a process for securing donations and funding from organisations. Through internet research, ALIenergy carefully selected appropriate local/regional organisations and approached them with a personalised email (as opposed to conducting a large-scale generic direct marketing campaign). The organisations that ALIenergy contacted had one or more of the following characteristics: local and regional organisations; public sector organisations with tenants; private sector organisations with a corporate social responsibility record; private sector organisations working in energy, especially renewable energy; and private sector organisations that are likely to be thriving (e.g. solicitors). When organisations expressed an interest in donating or providing funding, ALIenergy developed bespoke slide decks for presentations to candidate organisations and engaged in a series of meetings with the organisations to negotiate the detail of the donation or funding.

Challenges

Although this work was successful and directly supported the work on energy poverty that is discussed below, ALIenergy also reported challenges. This work is very time-consuming. Typically, securing such funding requires repeated meetings with and presentations to potential donors or funders. This is very understandable because it is necessary to build trust and establish firm credentials as a legitimate and worthy recipient of donations and funding. In addition, this work was made more challenging by the impacts of high inflation and the 'cost of living crisis' on both public and private sector organisations. This meant that organisations were less able to make donations.

Outcomes

ALIenergy reports that it now has a robust process and set of communications materials for approaching organisations and establishing productive relationships with them. In November 2022, ALIenergy secured funding of €184,000 from a large social housing provider in the Highland region to implement the Affordable Warmth programme for its (this work is evaluated in the Identify and Alleviate sections below). In January 2024, ALIenergy received further funding of €17,250 from the same housing provider

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to extend the Affordable Warmth programme (total €201,250). Further, as a direct result of the Highland project, a local insulation installer donated €1,150 from its Community Development Fund, for the purchase of 100 'cosy kits'[17] for use in the Highland Affordable Warmth programme. ALIenergy also received donations from a local law firm and a renewable energy company with local interests. In total, ALIenergy raised €3,738 from corporate donations.

Referral fees

In mid-2023, ALIenergy's increasingly entrepreneurial approach to fund-raising led to it negotiating and establishing an arrangement through which it received referral fees from a private sector company that provides and installs domestic insulation and renewables. To May 2024, ALIenergy has raised €7,371 through this contract.

ALIenergy 'cosy kits' and event banner in the ALIenergy storeroom.

Overall outcomes

The funds that were raised through all of these approaches, from May 2022 to May 2024, are shown in Table 5.2 (over the page). During this two year period, ALIenergy raised a total of €213,800.

Other developments

In partnership with several other local charities, ALIenergy opened a charity shop and community space in Oban (where ALIenergy is based) in May 2024. The charity shop will provide income for the charities. The plan is for the community space to be available for community workshops, for example, upcycling

[17] 'Cosy kit' is ALIenergy's term for a bag containing a range of easy to install/use energy efficiency items.

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and repair workshops, which will produce further income in some cases. It can also be used by the charities for their own work, for example, for ALIenergy to put together their 'cosy kits' for people in energy poverty and for one of the other partners to prepare food parcels for people in poverty.

As a further possible funding stream, ALIenergy is also investigating investing in local third-party renewable energy developments. By July 2024, ALIenergy had undertaken meetings with four schemes and negotiations are ongoing.

Month	Social Housing Provider	Corporate Donations	Small Individual Donations	Referral Fees
July 2022		€575		
August 2022		€288		
September 2022			€1,150	
October 2022				
November 2022	€46,000			
December 2022				
January 2023			€183	
February 2023	€46,000			
March 2023				
April 2023				
May 2023	€46,000		€109	
June 2023				
July 2023				
August 2023	€46,000			
September 2023				€1,750
October 2023				
November 2023		€1,725		€2,858
December 2023		€1,150		
January 2024	€17,250			
February 2024				€1,459
March 2024				
April 2024				€1,304
May 2024				
Totals	**€201,250**	**€3,738**	**€1,442**	**€7,371**
GRAND TOTAL	**€213,800**			

Table 5.2. Funds raised in the ALIenergy pilot project to May 2024.

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5.4. Identify (EO3)

Identify: the new professional targeting referral network

Process

As discussed earlier, since ALIenergy was starting to work in a new geographical area (the Highland region), it needed to set up a new referral network. ALIenergy's process for this was informed by the need to get the right balance between too few and too many new client households contacting the Affordable Warmth service. This is likely to be a key challenge for all energy solidarity projects. ALIenergy put it like this:

> *'At the start of the work in the Highland region we didn't really know what the volume of work would be, and it could have been really large, and there were concerns that we would be completely overwhelmed on day one with thousands of people. So, we made the decision that we would take clients in through referrals rather than to just market the service directly to all the tenants and say, "Just give us a call," because we felt that that could have been chaos and disaster if they'd all tried to call in at once. So, we have to manage the number of referrals coming in to optimise it for us so that it is not too small or not too large.'*

Given the concern about the potential numbers of referrals to the Affordable Warmth service, ALIenergy developed the new professional targeting network in stages. At each stage, new members of the referral network were given briefings on the Affordable Warmth service (particularly what it does and does not offer), how to identify households that appear to be struggling with their energy bills and how to refer households to ALIenergy.

Over three stages, the following teams and organisations were brought into the network: the social housing provider's teams of Housing Officers, their other relevant staff teams (such as building maintenance), and other relevant frontline public sector and third sector organisations (for example relating to health and social care, substance abuse or suicide). At the later stages in this process, ALIenergy used other funds from its fund-raising activities to extend the Highland Affordable Warmth service to a limited number of other households in the Highland area who were not tenants of the housing provider.

Challenges

At each stage of this process, considerable time and effort was expended on meeting with and briefing these teams and organisations. Early on in the project implementation, referrals were slower to come through than had been expected or hoped. Although briefings took place in late 2022, the ALIenergy team had the impression that some referrers had decided to start referring only in the new year. ALIenergy responded to this challenge with further and repeated briefings.

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In addition, ALIenergy were very aware that awareness of and trust in ALIenergy among households was much lower in the new Highland region than in its established areas in west Scotland. ALIenergy commented:

> *'As we are a new service in the Highland region it takes a length of time to build up trust and for people to recognise and trust us, for word to spread that we can do something that can benefit people. I think we definitely take that for granted in Argyll and Bute because we're so well-known whereas with this one, it has taken a long time and it has been like a big snowball, which has had to grow and grow with a lot of work from our side.*

Outcomes

The numbers of referrals by month are shown in Table 5.3. The table shows that the numbers of referrals increased as referrers became more familiar with and confident about the ALIenergy offer. The data that is shown in Table 5.3 (as well as Table 5.7 in the Alleviate section below) was provided by ALIenergy on the basis of the records in its bespoke Client/Customer Management System (CMS). A CMS attracts a cost and can be time-consuming to set-up. Nonetheless, the experiences of ALIenergy suggest that this is a worthwhile investment for organisations that plan to work in-depth with sizeable numbers of households.

	Number of households			
Month	**Referrals to ALIenergy**	**Not possible to contact**	**Ineligible referrals**	**Actionable referrals**
November 2022	12	1	0	11
December 2022	11	0	0	11
January 2023	28	2	0	26
February 2023	60	9	2	49
March 2023	43	5	1	37
April 2023	28	1	3	24
May 2023	35	0	4	31
June 2023	27	0	2	25
July 2023	22	0	3	19
August 2023	40	0	6	34
September 2023	93	3	11	79
October 2023	129	1	14	114
November 2023	153	7	1	145
December 2023	156	4	0	152
January 2024	163	8	0	155
February 2024	132	7	0	125
March 2024	183	9	1	173
April 2024	71	11	0	60
May 2024	91	12	1	78
TOTAL	**1477**	**80**	**49**	**1348**

Table 5.3. Household referrals to the Highland Affordable Warmth programme to May 2024.

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The assessment call

Process

Once referrals came through to ALIenergy, the households received an assessment call from ALIenergy. This call had three purposes:

1. To establish eligibility for Affordable Warmth. In the current energy crisis, the only eligibility criterion that ALIenergy applied was to ascertain whether they could help with the households' situation.
2. To assess the situation in terms of the household structure, the heating system, the severity of the energy poverty, and the presence of vulnerabilities in the household.
3. On the basis of the assessment, to triage households to establish:
    a. Whether an immediate crisis intervention was required and what topics of advice would be appropriate.
    b. Whether a home visit was needed or whether a further telephone consultation would be appropriate.

Challenges

The following challenges were experienced in this stage:

1. The assessments revealed that some of the early referrals to the Affordable Warmth programme were ineligible because the challenges were not ones that ALIenergy could help with, such as the need for building repairs and improvements, which are the responsibility of the housing provider. ALIenergy responded to this challenge through further briefing and clarification with referring teams.
2. In some cases, it was not possible to contact the households.
3. In some cases, householder lack of knowledge (for instance, with respect to their home or their energy supplier or bills) or householders' challenges with communication meant that it was sometimes not possible to complete the assessment adequately. In some circumstances, this made it more likely that a home visit would be necessary.

Outcomes

The number of eligible and actionable referrals in the programme is shown in Table 5.3 (above). The data shows increases in referrals during the winter months when levels of energy poverty rise. Table 5.3 shows that 1348 eligible and actionable households were referred to the Highland Affordable Warmth programme between November 2022 and May 2024.

Householder responses to the 'baseline' survey suggest that the ALIenergy referral network approach was effective in targeting people who are struggling to pay their energy bills. Although it is important to remember that CEES uses a definition of energy poverty that goes beyond affordability, the 167 responses to the baseline survey question, 'Thinking about the past year, how much difficulty have you

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had with affording your energy bills?' is a useful indicator of energy struggles. Table 5.4 shows that around three quarters (76%) of the respondents were experiencing 'great difficulty' or 'some difficulty' paying their energy bills in the year prior to their contact with the Affordable Warmth project. Meanwhile, very few respondents (4%) had been experiencing 'no difficulty' or 'little difficulty' paying their energy bills.

	Number (%)
1 - No difficulty	1 (1%)
2	5 (3%)
3	32 (19%)
4	16 (10%)
5 - Great difficulty	110 (66%)
No answer	3 (2%)

Table 5.4. Baseline responses to the question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' (n = 167).

The demographic characteristics of the 167 participants who completed the 'baseline' survey are shown in Table 5.5 below.

5.5. Alleviate: the Affordable Warmth process (EO4.1)

Introduction: elements of the Alleviate mechanism

As mentioned earlier, ALIenergy had to set up an entirely new Affordable Warmth service in the Highland region. Thus, the ALIenergy CEES pilot alleviate process had four main elements to it:

1. Recruiting three new energy advisors to work in the Highland region.
2. Training the new energy advisors.
3. Developing new work practices, accounting for the fact that the new energy advisors would be working remotely from the ALIenergy office and the increasingly emotionally challenging nature of the work that they would be doing.
4. Delivering the Highland Affordable Warmth programme in the Highland region through a combination of providing energy advice and support applying for 'crisis grants' within the context of home visits and telephone consultations.

These elements are discussed in the following sections.

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	Number of households (%)
Number of people in household	
1	89 (53%)
2	34 (20%)
3	21 (13%)
4	17 (10%)
5	4 (2%)
6	1 (1%)
7	0 (0%)
8	1 (1%)
Number of children (aged 17 or less) in household	
0	110 (66%)
1	21 (13%)
2	24 (14%)
3	6 (4%)
4	3 (2%)
5	1 (1%)
Number of older people (aged 65 and above) in household	
0	140 (84%)
1	20 (12%)
2	6 (4%)
One or more person with a disability or long-term illness	
Yes	83 (50%)
No	84 (50%)
One or more person in paid employment	
Yes	21 (13%)
No	90 (54%)
No answer	56 (34%)
One or more adult male in the household	
Yes	84 (50%)
No	83 (50%)
Type of property	
House	130 (78%)
Purpose built flat or apartment	36 (22%)
Tenure	
Social tenant	167 (100%)

Table 5.5. Demographic characteristics of households that completed the 'baseline' survey in the ALIenergy Affordable Warmth programme (n = 167).

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Recruiting energy advisors

The process

In order to implement the work in the Highland region, ALIenergy recruited three new energy advisors. ALIenergy reported:

> *'We always use social media / all the free networks we can think of, but also some paid advertising'.*

ALIenergy gave a very helpful explanation of how it goes about recruiting energy advisors with the right combination of social and technical skills. These points can be summarised as follows:

- Although technical skills in energy, energy efficiency and energy poverty are important, the social skills to work well with vulnerable people are more important. ALIenergy reported that, although they are able to train people in the appropriate technical skills, this is not so feasible for the required people skills.
- These essential social skills include patience, empathy and understanding; the ability to work and communicate with people who might come across as rude or angry, or might have limited cognitive capabilities; and a calm demeanour.
- CVs are helpful, but interviews are preferred for assessing these skills (including online interviews).
- ALIenergy also recommends having a variety of people on the interview panel.

Challenges with recruitment

Although one advisor was recruited relatively quickly and straightforwardly, further rounds of advertising were required to recruit the other two. ALIenergy suggested that this was for two key reasons:

1. Employment rates were relatively high during the recruitment period. This meant that the pool of potential recruits was perhaps smaller than it might be at time of higher unemployment.
2. The person specification for the posts was relatively specialised and geographically specific. The strong social skills mentioned above were listed as essential, with technical skills in energy efficiency and energy poverty listed as desirable. In addition, the energy advisors needed to be based in the Highland area so that home visits and attendance at events would be feasible.

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Training the energy advisors

Process

ALIenergy ran a training day for its three new energy advisors (and two existing ALIenergy staff) on 24 January 2023[18]. The programme covered the following topics:

- Evolution of ALIenergy's Affordable Warmth service
- Working with people with complex needs
- Remote working
- Better Futures (ALIenergy's client management system)
- First call assessment session (as discussed above)
- Assessing funds for clients
- The role of the Energy Ombudsman

Outcomes

The data and information that was collected through the trainee survey suggests that this session was excellent. As shown in Table 5.6, all of the five participants in the training day agreed with the positive statements about the training.

	Agree	Disagree
I learned practical information and skills to help me to support householders to reduce their energy consumption and costs.	5 (100%)	0%
I feel MORE confident than before that I can support householders to reduce their energy consumption and costs.	5 (100%)	0%
I intend to take action to reduce my own energy consumption and costs.	5 (100%)	0%
The training event was well-run.	5 (100%)	0%
The training event was tailored to my needs.	5 (100%)	0%

Table 5.6. Participant perceptions of the ALIenergy training days (n = 5).

In response to the open text question, 'What was the best aspect of today's event for you?', the participants responded:

- Group discussion and updated info.
- Update on funds

[18] Referrals before this date were handled by the energy advisor that was recruited in the first round and was already experienced.

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- Getting the chance to discuss ALIenergy's entire service with whole team.
- Content well presented.
- Getting a better understanding of what is offered by ALIenergy

It is notable in these responses that two of the respondents specifically referred to the value of the group discussion. This broad theme of interaction between team members is important in the following section on new working practices. The quality of the ALIenergy training is also reflected in the participant responses to the open text question, 'Was there anything you didn't like or that didn't work for you?' In this case, all of the responses were either 'No' or 'not applicable'.

Developing new work practices

New challenges

In advance of implementing the Affordable Warmth programme in the Highland region, ALIenergy needed to develop new work practices to attend to the well-being of the energy advisors. This was for two key reasons that were likely to place growing emotional demands on energy advisors:

1. The fact that the energy advisors were working remotely, away from the ALIenergy management team and offices.
2. The deepening 'energy crisis' and broader 'cost of living crisis' meant that the desperation of many households was increasing to such an extent that some households were dangerously restricting their heating and other energy services even in the depths of a Scottish winter. ALIenergy used the phrases 'heat or eat' and 'freeze or starve' to encapsulate the challenges that households were facing.

Responses to this challenge

ALIenergy responded to this challenge by introducing a range of measures to support the well-being of the energy advisors and train the energy advisors in issues that they were increasingly likely to encounter. These included:

- Training to recognise and respond to the threat of suicide.
- Training to recognise and respond to problem gambling.
- Weekly team catch-up sessions online.
- Monthly one-to-one meetings.
- Where possible, arranging in-person team and individual meetings, with social elements, such as a dinner after work.
- Training and support with personal resilience and well-being.
- Making sure that the energy advisors know that they should not work beyond their contracted hours and that they should take their annual leave.

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The ALIenergy energy advisors.

Delivering the Highland Affordable Warmth programme

New challenges and responses

The Highland Affordable Warmth programme was implemented according to a process that was different to the process that was already established in west Scotland in two key ways.

The first change responded to the new 'crisis grant' schemes that had been introduced by the Scottish and UK governments in response to the 'energy crisis'. Thus, while the Affordable Warmth programme that had been established in west Scotland focused on the provision of energy advice, this was complemented across the programme (in both west Scotland and the Highland region) with providing support for households to apply for 'crisis grants'. This involved helping the householder to compile the information and evidence that was required and making the application on behalf of the household.

The second key change responded to two factors:

1. Increasing levels of demand due to the 'energy crisis' and broader 'cost of living crisis'.
2. The sparse and geographically dispersed nature of the population of the Highland region.

In response to these challenges, ALIenergy employed telephone consultations, rather than home visits, more than they had done previously. Home visits were still undertaken where this was most feasible or felt to be advantageous. Interestingly, some householders preferred the telephone approach. The team at ALIenergy felt that this may be because this allows householders to access the service without their neighbours becoming aware and/or without having to have a visitor come inside their home; both of these concerns can be understood within the context of the shame and stigma that may be felt by people living with energy poverty. It is worth noting that, although ALIenergy also experimented with video calls, the technology demands of this were too much for many of their clients.

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Outcomes

The numbers of households that were supported through energy advice and by securing financial support are shown in Table 5.7[19]. Table 5.7 shows that energy advice was provided to all of the 1,348 eligible referrals[20]. Financial support was secured for a slightly smaller number of households (1,036). In some cases, this was because the households were not able – or were not willing – to produce the evidence that was required for the grant scheme (such as bank account statements). Nonetheless, ALIenergy was successful in securing a total of €322,115 for households in the Highland region.

	Number of households			
Month	**Actionable referrals**	**Energy advice provided**	**Financial support secured**	**Financial support secured (€)**
November 2022	11	9	0	€0
December 2022	11	13	4	€3,261
January 2023	26	25	4	€1,842
February 2023	49	42	8	€2,637
March 2023	37	62	0	€0
April 2023	24	29	19	€1,357
May 2023	31	37	22	€6,039
June 2023	25	39	20	€8,287
July 2023	19	45	11	€1,403
August 2023	34	41	16	€8,481
September 2023	79	75	13	€2,006
October 2023	114	163	24	€6,292
November 2023	145	192	108	€60,219
December 2023	152	202	152	€51,155
January 2024	155	256	131	€49,154
February 2024	125	229	154	€62,489
March 2024	173	236	267	€33,149
April 2024	60	243	39	€19,344
May 2024	78	295	44	€5,000
TOTAL	**1348**	**2233**	**1036**	**€322,115**

Table 5.7. Numbers of households supported to May 2024.

[19] Readers may note that the month-by-month numbers of households for whom support was provided often do not tally with the numbers of eligible referrals. This is because the support was typically provided to a particular household in the month or months following the establishment of the household as an eligible referral. This was particularly the case with respect to the provision of financial support, which takes longer to arrange. Further, in some cases, households needed to wait for new crisis grant schemes to begin (e.g. see the lack of funds secured in March 2023).

[20] The total number of households that ALIenergy engaged with was 1348. From October 2023, the figure in the 'Energy advice provided' column is higher than this because ALIenergy returned to some households with further support.

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5.6. Alleviate: short term household experiences and impacts (EO4.2)

Short term household experiences

Short term household experiences of the Affordable Warmth programme were evaluated through three questions in the CEES 'engagement' survey. This survey was completed by 152 participating households at the end of the key engagement event (either a telephone call or a home visit) in the provision of the Highland Affordable Warmth programme to that household. The results from these questions are shown in Table 5.8.

	Agree	Neither	Disagree
The telephone call/home visit today was well-run			
Telephone calls	119 (96%)	5 (4%)	0 (0%)
Home visits	24 (100%)	0 (0%)	0 (0%)
All events	143 (97%)	5 (3%)	0 (0%)
The telephone call/home visit suited my needs			
Telephone calls	114 (92%)	10 (8%)	0 (0%)
Home visits	24 (100%)	0 (0%)	0 (0%)
All events	138 (93%)	10 (7%)	0 (0%)
The telephone call/home visit today was conducted in a respectful way			
Telephone calls	119 (96%)	5 (4%)	0 (0%)
Home visits	24 (100%)	0 (0%)	0 (0%)
All events	143 (97%)	5 (3%)	0 (0%)

Table 5.8. Household experiences of the Highland Affordable Warmth programme events (n = 148).

Table 5.8 shows that household experiences of the Affordable Warmth events were positive; participants overwhelmingly agreed that the events were 'well run', 'suited their needs' and were 'conducted in a respectful way'. Agreement with all three statements is above 90% for telephone calls and is 100% for home visits. This slight difference might be related to the greater depth of engagement that is possible in a home visit. Given the lack of respect that can be experienced by people in energy poverty, it is particularly satisfying to note that across the telephone calls/home visits, 97% of respondents felt that the events were 'conducted in a respectful way'.

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The ‘engagement’ survey also contained three open text questions. The responses to these questions further emphasise the positive experiences of householders.

- In response to the question, ‘What was the best aspect of today’s telephone call/home visit?’, responses focused on positive themes relating to ‘help’, ‘advice’ and ‘grants’.
- In response to the question, ‘Was there anything you didn’t like or didn’t work for you?’, almost all of the respondents did not answer that question or answered ‘No’. One respondent commented that they were still unsure about how energy tariffs work.
- In response to the question, ‘Is there anything further you would like to add?’, almost all of the respondents did not answer that question or answered ‘No’. One respondent only added, ‘I am so grateful for the help’.

Short term impacts for households

Short term impacts of the telephone calls and home visits in the Affordable Warmth programme were examined through two further questions in the ‘engagement’ survey that was discussed above. The findings from these questions are shown in Table 5.9. Despite the positive answers regarding the experience of the calls / visits noted above, answers to these questions on the impacts were more ambivalent, with 36% of respondents responding that they neither agreed nor disagreed that they had learned practical information and skills to help them reduce energy costs, or that they felt confident they could reduce energy costs in the future. This is perhaps not surprising given the severity of the problems faced by some, which are not quick to fix; because new learning and skills take time; and because many would have already reduced their consumption as far as possible. It is notable that a clear majority did nevertheless give positive answers to these questions. Telephone calls appeared to be felt to be at least as effective as home visits overall (with more phone call receivers agreeing with the questions, though also more disagreeing). This is a reassuring result, because phone calls are more time efficient so allow more people to be reached, but in the absence of evidence, might be assumed to be less effective. These responses strongly suggest that both types of interaction were broadly successful in developing learning and confidence among householders.

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	Agree	Neither	Disagree
I have learned practical information and skills today to help me reduce my energy consumption and costs.			
Telephone calls	77 (62%)	40 (32%)	7 (6%)
Home visits	11 (46%)	13 (54%)	0 (0%)
All events	88 (60%)	53 (36%)	7 (5%)
I feel more confident than before that I can reduce my energy consumption and costs.			
Telephone calls	74 (60%)	40 (32%)	10 (8%)
Home visits	11 (46%)	13 (54%)	0 (0%)
All events	85 (57%)	53 (36%)	10 (7%)

Table 5.9. Short term impacts on households in the Affordable warmth programme (n = 148).

5.7. Alleviate: longer term household experiences and impacts (EO4.2)

Longer term experiences

The ALIenergy 'follow-up' survey contained four retrospective questions about longer term experiences of the programme and was completed by 40 participating households, three to six months after the events that were discussed above. The findings from this survey are shown in Table 5.10. These results provide further evidence that the ALIenergy Affordable Warmth programme was successful in terms of its process. Across these four questions, the level of agreement with the statements is 90% or above. Three to six months after their participation, households in the programme clearly felt that the programme was well-run (90%), that the energy advisors listened and were respectful (93%) and that the programme was adaptable to suit their needs (90%). Finally, 93% of participants agreed that they would recommend the programme to others.

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	Agree	Neither	Disagree
The programme was well run.	36 (90%)	3 (8%)	1 (1%)
I felt listened to and respected by the people who were delivering the programme.	37 (93%)	2 (5%)	1 (3%)
The programme was adaptable to suit my needs.	36 (90%)	3 (8%)	1 (1%)
I would recommend the programme to other people who struggle to pay their energy bills.	37 (93%)	2 (5%)	1 (3%)

Table 5.10. Longer-term household experiences of the Affordable Warmth programme (n = 40).

Longer term changes: comparing the 'baseline' and 'follow up' surveys

Introduction

Longer term impacts of the pilot projects were examined by comparing each household's responses to a 'baseline' survey to their responses to an identical 'follow-up' survey. In ALIenergy's pilot, the 'baseline' survey was conducted in the initial telephone call to households and the 'follow-up' survey was conducted largely by telephone between six and nine months after the main interaction with each household (largely a home visit or telephone consultation). Once the ALIenergy baseline and follow-up data had been cleaned and integrated, 40 matched pairs of households were available for analysis. This is around one quarter of the 162 completed baseline surveys and 3% of the 1348 households that participated in the Highland Affordable Warmth programme to May 2024. Differences between the baseline survey data and the follow-up survey data were examined using the Related-samples Wilcoxon signed-rank test, with a confidence level of 90% required to establish significant changes. As discussed earlier, 90% was used due to the relatively small sample sizes. It is important to note that any changes between the 'baseline' and 'follow-up' surveys cannot be unproblematically attributed to participation in the Affordable Warmth programme. This is because some changes might be due to other factors, such as seasonality, which could not be controlled for.

The results of this analysis are examined in Tables 5.11 to 5.13. These tables show all of the items from the 'baseline' and 'follow-up' surveys that relate to energy poverty. Items where a statistically significant change was identified, with a 90% level of confidence, are highlighted in green. The tables also show the means for the variables in the 'baseline' and 'follow up' surveys, as well as the difference between the means. Finally, the tables offer a description of the statistically significant changes.

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Paying energy bills

As indicated in Table 5.11, the ALIenergy analysis shows a statistically significant *decrease* in the means between the 'baseline' survey and the 'follow-up' survey. Notwithstanding the caveat that changes cannot confidently be fully attributed to the programme, this is a positive result that indicates that households reported *less difficulty* paying their energy bills six to nine months following their engagements with the Highland Affordable Warmth programme than they did prior to these engagements.

Self-restriction of energy services

Table 5.11 also shows the results with respect to the self-restriction of access to energy services by householders. The analysis shows a statistically significant *decrease* in the means between the 'baseline' survey and follow-up' responses with respect to seven of the eight the survey items. The only exception is for cooling; given the climate in Scotland, it is not surprising that this item was considered to be not relevant by most survey respondents. With respect to the other seven survey items – heating, cooking, refrigeration, laundry, hot water, lighting and electronic devices – the results indicate that householders were able to exercise *less self-restriction* of access to these energy services following their participation in the ALIenergy programme. This provides further evidence pointing to positive impacts of the ALIenergy Affordable Warmth programme.

Negative impacts of energy struggles

Table 5.12 shows the findings with respect to the negative impacts of challenges with paying for energy. The findings suggest that there were statistically significant changes with respect to feeling of pride in the home and feeling comfortable in the home. In both cases, there is evidence that the negative impact of energy poverty on these phenomena was reduced. In addition, with respect to impacts on physical health and mental health, it is worth touching on the responses to questions on these two topics that were in the 'follow-up' survey. The responses to these two questions suggest that 75% of the follow up survey respondents felt that participation in the Affordable Warmth programme had had a positive impact on both the physical health and the mental health of their household.

Energy literacy and know how

Table 5.13 shows the findings with respect to the energy literacy and know-how of the householders. The analysis shows a statistically significant difference with respect to six survey items in the 'baseline' and 'follow-up' surveys. More specifically, following participation in the ALIenergy Affordable Warmth programme, the findings show a significant positive *increase in householder knowledge or understanding* with respect to: monthly energy consumption or cost, energy bills, energy tariffs, how to contact energy suppliers, how to save energy and home insulation. In addition, the data suggests that households were more confident that they were receiving all of their welfare benefits following engagement with the programme. Given that these findings are less likely to have been impacted by seasonality, they provide further indications of the positive impacts of the ALIenergy programme.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Difficulty affording energy bills. 1: No difficulty; 5 = Great difficulty (n = 39).	4.69	3.00	-1.69	Less difficulty
Self-restriction of access to energy services in order to be able to afford energy bills. 1: Not restricted at all; 5: Restricted to a great extent.				
Heating (n = 40)	4.60	3.30	-1.3	Less self-restriction
Cooking (n = 39)	3.41	2.23	-1.18	Less self-restriction
Refrigeration (switching off fridge or freezer) (n = 38)	1.76	1.15	-0.61	Less self-restriction
Cooling your home	Not relevant. Too few responses			
Doing laundry (n = 39)	3.62	2.33	-1.29	Less self-restriction
Heating hot water (n = 37)	4.18	2.92	-1.26	Less self-restriction
Lighting (n = 40)	3.03	2.02	-1.01	Less self-restriction
Running electronic devices (for example, TVs, computers and phones) (n = 23)	3.35	2.28	-1.07	Less self-restriction

Table 5.11. Household responses to the 'baseline survey' and 'follow up' survey in the ALIenergy Highland Affordable Warmth programme (paying bills and self-restriction of access to energy services). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Negative impacts on household of challenges paying for energy: 1: No impact at all; 5: A lot of impact				
Physical health or well-being (n = 40)	3.53	3.67	0.14	-
Mental health (n = 40)	4.35	4.08	-0.27	-
Ability to study at home	Insufficient responses			
Ability to work at home	Insufficient responses			
Ability to have visitors in the home (n = 32)	4.14	3.51	-0.63	-
Feeling of pride in the home (n = 37)	4.19	3.52	-0.67	Less negative impact on pride
Feeling comfortable in the home (n = 39)	4.31	3.70	-0.61	Less negative impact on comfort
Feeling safe and secure in the home (n = 17)	2.04	2.86	0.82	-
Ability to access online/digital communication services … (n = 33)	2.87	2.62	-0.25	-
Ability to enjoy recreational activities in the home (n = 37)	3.08	2.75	-0.33	-

Table 5.12. Household responses to the 'baseline survey' and 'follow up' survey in the ALIenergy Highland Affordable Warmth programme (negative impacts of problems affording energy). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Extent of agreement with statements: 1 = 'I don't agree at all' and 5 = 'I strongly agree'.				
I know my approximate monthly energy consumption or costs (n = 40)	2.58	3.93	1.35	Greater understanding
I understand my energy bills (n = 29)	2.13	3.41	1.28	Greater understanding
I know that I am on the best energy tariff for me (n = 21)	1.92	3.20	1.28	Greater understanding
I know how to manage my energy bills online (n = 29)	2.03	2.40	0.37	-
I know how to contact my energy supplier (n = 38)	3.58	4.13	0.55	Greater understanding
I know how to save energy in my home (n = 39)	3.03	4.10	1.07	Greater understanding
I know if my home is well insulated or not (n = 18)	2.30	3.28	0.98	Greater understanding
I am confident that I am receiving all benefits/welfare payments that I am entitled to (n = 31)	3.52	4.11	0.59	Greater confidence
I think that my local community is supportive of people who struggle to pay their energy bills (n = 23)	3.07	2.87	-0.20	-
I feel a sense of stigma or shame because of my struggles with energy bills (n = 37)	2.08	2.79	0.71	Greater stigma

Table 5.13. Household responses to the 'baseline survey' and 'follow up' survey in the ALIenergy Highland Affordable Warmth programme (energy literacy and know how). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

As indicated at the foot of Table 5.13 the findings show that the sense of stigma among householders increased between the 'baseline' survey and the 'follow-up' survey. Recalling the finding in the 'engagement' survey that householders generally felt that the programme was conducted in a respectful way, it seems unlikely that the Affordable Warmth programme is directly responsible for this increase. However, it is possible that participation in the programme (discussing challenges with others and applying for 'crisis grants') obliged householders to think about their situation in new and challenging ways that led to this increase, or that over time they accumulated more experience of shame.

Longer term impacts: the follow-up survey

The ALIenergy 'follow-up' survey contained five questions that retrospectively asked households about changes during the period since their participation in the Affordable Warmth project. The results are shown in Table 5.14. The findings from these questions provide further indications of the strengths of the ALIenergy Affordable Warmth programme. The level of agreement with all five of the statements is 70% or above and the level of disagreement is 8% or less. This suggests that the Affordable Warmth programme produced positive impacts in terms of learning about reducing energy consumption and costs, confidence that future energy bills will be lower and that participation in the programme has produced improvements in the physical health and mental health of the household.

	Agree	Neither	Disagree
I have learned more about how to use less energy through participation in the project.	30 (75%)	9 (23%)	1 (3%)
I have learned more about how to save on the cost of energy through participation in the project.	29 (73%)	10 (25%)	1 (3%)
I think my energy bills will be lower through participation in the project.	28 (70%)	10 (25%)	2 (5%)
Participating in the project has improved the physical health of my household.	30 (75%)	7 (18%)	3 (8%)
Participating in the project has improved the mental health of my household.	30 (75%)	9 (23%)	1 (3%)

Table 5.14. Longer-term household impacts of the Affordable Warmth programme (n = 40).

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Limitations on impacts

Although the foregoing material is positive about the impacts of the ALIenergy programme, the ALIenergy team also expressed concerns about the temporary nature of the impacts that they can produce through 'crisis grants':

> *'It really is firefighting, the amounts of crisis grants that we can access are not life changing amounts in any way. They are usually quite small grants, and often they have to be repeated. They will allow people to switch their heating on for a little while, but then the money will run out again. So, it is a very bad situation.'*

5.8. Energy advisor experiences and impacts (EO4.2)

Given that ALIenergy was working with three new energy advisors and in the context of some new work practices (as described above), it is clearly important to address the experiences of the energy advisors. The experiences of the ALIenergy Highland energy advisors were examined in two ways. First, as in the other relevant pilots, this was done through the 'energy advisor' survey. In addition, in the case of ALIenergy, since it was straightforward to conduct an interview in English, this was also done in the form of an interview with the three energy advisors. The responses of the three ALIenergy energy advisors to the 'energy advisor' survey are shown in Table 5.15. The findings are positive, with unanimous agreement regarding learning and skills development, enhanced CV and employability, good and flexible project management and feelings of connection to the local community. In addition, two of the three energy advisors agreed that working on the programme had positive impacts on their confidence.

	Agree	Neither	Disagree
I have learned a lot and developed new skills.	3 (100%)	0 (0%)	0 (0%)
My confidence has grown.	2 (66%)	1 (33%)	0 (0%)
My CV and employability are enhanced.	3 (100%)	0 (0%)	0 (0%)
The project was well-run	3 (100%)	0 (0%)	0 (0%)
Project management team was easy and flexible to work with.	3 (100%)	0 (0%)	0 (0%)
I feel more connected to my local community.	3 (100%)	0 (0%)	0 (0%)

Table 5.15. Experiences of the ALIenergy energy advisors (n = 3).

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The interview with the three energy advisors was revealing in a number of ways. For instance, the interview revealed how shocking it can be for energy advisors to start working with people in energy poverty. This emphasises the need for energy communities to think very carefully about the recruitment, training and welfare of energy advisors. One of the energy advisors described the following experience:

> *Before doing this, I've gone through my life with blinkers on. I had no idea what was out there. I've been relatively fortunate, it's kind of the first time I've come into this side of these things, and it's an eyeopener to me, to hear these stories, people struggling, and they couldn't put electricity in the meter. And you just thought, "Oh, it's a lot of rubbish, they've got benefits, they've got this, they've got that," and actually they clearly don't! The amount of people I've said to over the last year, when they're saying, "Oh, it must be great, there's no incentive for people to work 'cos they must be making a fortune on benefits" – and don't get me wrong, there's one or two that seem to be coining it in – but as a whole, how they're surviving, I have no idea. And particularly now with energy costs.*

Another energy advisor made a very telling comment about the attitudes and actions of energy companies. This comment chimes with previous research that describes the negative experiences of vulnerable households in dealing with organisations including energy companies (George et al., 2011; Grossmann and Trubina, 2021)[21]:

> *'The biggest eyeopener for me is how the energy companies can behave. The way these big companies treat people is just outrageous, and just the stress that they put people under. The way they talk to people, how rude they are, accusing them of lying, putting the phone down on them, don't contact them back. Just seem to make up figures out of thin air, and then will write them off at the drop of a hat, just 'cos I dropped an email, after a client spent a year in tears, and one email from me and they'll suddenly drop it, and you think, "Well, what's all that about?" And they just assume, everyone's got a smartphone, everyone's got access to the internet.*

At the same time, the ALIenergy energy advisors also described how a small number of potential clients try to take advantage of the Affordable Warmth service. For example, the energy advisors described situations in which people have debt but are also taking foreign holidays, where people try to get the same support (e.g. applying for 'crisis grant') from more than one of the energy

[21] George, M., C. Graham and L. Lennard (2011) Too many hurdles: information and advice barriers in the energy market, Centre for Consumers and Essential Services, University of Leicester (funded by eaga Charitable Trust).
Grossman, K. and E. Trubina (2021) How the Concept of Dignity Is Relevant to the Study of Energy Poverty and Energy Justice, Frontiers in Sustainable Cities, 12 April, 2021.

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advisors and difficult situations when the assessment call shows that they are not eligible or appropriate for support from the service.

Regarding their own health and safety, the team also noted that they have a 'red flag' process in the referral system to identify households that they *should not visit*; this was particularly an issue for the female energy advisors. The energy advisors also described the ongoing need to avoid the temptation to get more involved in addressing clients' problems than is appropriate. The team noted that the ALIenergy managers provide valuable support with these issues and commented that the work is 'rewarding'.

5.9. Impacts on local partners (EO7)

Although the referral network in the Highland region was made up of more than one person, ALIenergy was able to only share the local partner survey with one referral team manager that they were working with. The quantitative results from this survey are shown in Table 5.16. These responses speak for themselves and are positive. That said, in response to an open-ended question, the manager agreed with ALIenergy's own conclusion that it takes time for new systems to bed in and for referrals to flow. More positively, the manager described ALIenergy as 'professional', 'dedicated' and providing a 'person-centred approach' that is 'valuable to households during the "cost of living crisis"'. The manager 'endorsed' ALIenergy's work on energy poverty.

	Agree	Disagree
Positive impact on energy poverty in participating households.	1 (100%)	0 (0%)
Positive impact on my own or my organisation's ability to work on energy poverty.	1 (100%)	0 (0%)
Enhanced my own or my organisation's appreciation of and respect for the challenges faced by households in energy poverty.	1 (100%)	0 (0%)
Well-run by ALIenergy.	1 (100%)	0 (0%)
Created and/or supported local networks of organisations and individuals working on energy poverty.	1 (100%)	0 (0%)
Keen to collaborate on future energy poverty work with ALIenergy.	1 (100%)	0 (0%)

Table 5.16. Feedback from the senior manager of referral teams (n = 1).

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5.10. Impacts on ALIenergy: the legacy of the pilot (EO6)

The evidence presented in this chapter shows that the ALIenergy pilot project has produced the following impacts and legacies for ALIenergy:

1. At the start of the CEES project, ALIenergy was reliant on one source of funding: competitive grants. Historically, this had made it challenging for ALIenergy to cover core costs and to maintain staffing levels over time. ALIenergy now has a much more entrepreneurial and creative approach to funding (including collaborative fund-raising). Over the course of the CEES project, ALIenergy has developed a range of knowledge, skills and processes to support a more robust and flexible portfolio of funding sources, including, in addition to grant funding: public donations, corporate donations and contracts for service provision. Looking to the future, ALIenergy is in the process of developing further income opportunities by collaboratively setting up a local charity shop/community space and investing in local renewable energy developments.

2. At the beginning of the CEES project, ALIenergy's work focused on west Scotland. Through the success of its activities on funding, ALIenergy has successfully extended this focus to the Highland region of Scotland and now has a well-established and growing network of organisations across the Highland region that refer households to ALIenergy (and to whom ALIenergy refer households, as appropriate). In addition, ALIenergy has a fully trained team of three energy advisors working very effectively in the Highland region. Further, ALIenergy has developed new working practices that are designed to look after the energy advisors' well-being within the context of extensive remote working and the ongoing energy crisis.

5.11. Key learning from the ALIenergy pilot

Preparing for energy solidarity work

1. In terms of recording household information and monitoring households' progress through project processes, by energy advisors, the use of a dedicated Client Management System offers far greater operational and reporting potential than a spreadsheet such as Excel. This can be time-consuming to scope, purchase and set up. The initial set up of a CMS is very important because this will determine the kinds of reports that can easily be produced later on.

2. The ALIenergy pilot demonstrates the value of an organisational structure that allows work on energy poverty to be planned and implemented independently of the need for approvals from other internal departments.

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Fund

1. While microdonations following the Energie Solidaire model are appropriate for energy communities that have their own customers, this is a very challenging approach for organisations that do not have customers.

2. Although these are time-consuming undertakings, programmes to support public donations, corporate donations and service contracts all have the potential to provide valuable income. Donations can be particularly useful because the income can be flexibly spent across different activities.

3. A broad portfolio of funding sources immediately brings benefits in terms of covering core costs and maintaining staff/service levels over time.

Identify

1. The ALIenergy approach offers a very robust model for developing a new referral network and system in a new geographical area. That said, this is a time-consuming process. Further, it takes time for the organisations in the referral network to build trust in a new partner and the knowledge to recognise who to refer and who not to refer.

Alleviate

1. Working as an energy advisor is highly specialised work, requiring a blend of social skills and technical skills. With this in mind, it is important to implement specific processes to recruit and train suitable people.

2. The work of an energy advisor is often emotionally challenging, especially within the context of the energy crisis. To address this concern, processes are needed to take care of energy advisors' well-being and resilience.

3. The ALIenergy Affordable Warmth approach provides a robust and effective model for energy poverty alleviation activities. The approach relies on: flexibility between telephone calls and home visits; flexibility between providing energy advice, supporting applications for crisis grants and both; and an understanding and empathetic approach that recognises the challenging circumstances of many households in energy poverty.

4. The evaluation indicates that the Highland Affordable Warmth has been effective in alleviating energy poverty in some respects. Nonetheless, ALIenergy itself expresses concerns about the limits to its ability to have a significant and lasting impact on energy poverty within the context of the very high levels of energy poverty across the areas in which it works.

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6. Coopérnico

6.1. Summary

The evaluation report addresses the following mechanisms.

The main new CEES mechanism

1. **Alleviate**:
    a. Workshops (promoted by Coopérnico as Energy Cafes): The provision of information on energy efficiency and energy poverty (and the identification of a sub-set of individuals for home visits).
    b. Home visits: As above, plus energy box[22] delivery, small improvements (such as insulating windows) and accessing government support.

Additional new CEES mechanisms

2. **Identify:** Working with a network of local partners (energy agencies[23], municipalities, civil parishes and 'senior universities'[24]) to identify suitable groups, mostly older people, for workshops and to set up Energy Café workshops. This was inspired by ALIenergy's referral network approach.

3. **Fund:** Co-funding of the energy boxes by the local partners.

[22] 'Energy box' is Coopérnico's term for a box containing a range of easy to install energy efficiency items. The energy box is described in more detail later.
[23] In Portugal, most energy agencies are private entities owned by municipalities or groups of municipalities, though not all municipalities have energy agencies. The objective of energy agencies is 'to promote the adoption of policies aimed at the rational use and conservation of energy, environmental management and the best use of energy resources' (see http://www.rnae.pt).
[24] Senior universities in Portugal are 'socio-educational responses that aim to create and regularly promote activities in the social, cultural, knowledge, learning and social areas, from the age of 50, pursued by public or private entities, with or without profit' (https://rutis.pt/universidades-seniores/).

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Evaluation summary

Identify

The first activity in Coopérnico's CEES pilot project was to set up a network of local partners (energy agencies, municipalities, 'senior universities' and others) in the greater Lisbon area. This activity was inspired by ALIenergy's referral network approach: seeking partners that can help to find people that may be in energy poverty. Coopérnico then worked with these partners to set up and implement a programme of energy poverty workshops (known within the project as Energy Cafes). Coopérnico and the partners decided to set up the workshops as part of programmes of weekly events that the partners were already running for *older people*. This decision was made on the basis of published data showing that older people in Portugal often experience energy poverty. This is significant because it meant that the workshops were 'open to all' of the older people and did not include any eligibility criteria. Coopérnico accepted this because the workshops were designed to be of value to all. It was very time-consuming to develop new relationships and set up the workshops. The plan was to then implement a programme of home visits, including the provision of an energy box, for a sub-set of workshop attendees. Coopérnico's objective was for the partners to fund the cost of the energy boxes. Coopérnico's project was publicly promoted as *Gastar Bem a Energia* (Spend Energy Well).

Alleviate

Although it was time-consuming to set up and implement the workshop programme, Coopérnico successfully ran a programme of 20 workshops for 374 people (made up of 266 older people and 108 people in a range of groups) to May 2024, with up to four more workshops planned in summer 2024. In addition, although not evaluated as part of CEES, Coopérnico was invited by the H2020 Sun4All project to deliver a programme of activities (workshops, home visits and trainings) in Braga in northern Portugal. This can be considered as a direct legacy of CEES.

With respect to the CEES workshops in and around Lisbon, as a result of the workshops being 'open to all', there is evidence that around one third of the participants were not struggling with their energy bills. The workshops for older people were highly valued by participants and supported learning and increases in confidence with respect to energy issues. However, three-to-six months after the workshops, the somewhat limited data that was available did not clearly show evidence of longer-term impact on energy poverty among the participants.

Workshop participants were not willing to sign up for home visits due to a range of trust concerns about allowing 'strangers' in their home. Adapting to this, Coopérnico distributed energy boxes at later workshops. In addition, Coopernico delivered energy boxes in 20 home visits that were implemented by the network of volunteers that had been established and trained in the POWERPOOR project. The evaluation shows that these home visits were also highly valued by the participants. It was not possible to evaluate the longer-term impacts of these sessions because they took place after the data collection

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period in CEES. While some partners that Coopérnico worked with were able to fund energy boxes, others were not; as a result, Coopérnico funded some of the energy boxes itself.

Conclusion

In conclusion, the evaluation shows that it is possible to work with local partners to set up and implement a programme of energy poverty workshops for older people. The 'open to all' approach meant that the workshop programme was able to reach a large number of participants (374 to May 2024) relatively easily. At the same time, the evaluation raises questions about the extent to which the 'open to all' approach to recruiting participants can also focus on people in energy poverty. Further, the evaluation shows that successful and valued workshops do not necessarily translate into clearly measurable impacts on indicators of energy poverty in the medium term. The evaluation also shows that lack of trust can be a significant issue with respect to visiting the homes of older people. Nonetheless, the legacy of the Coopérnico CEES pilot project is that Coopérnico now has a model for action on energy poverty that can be further developed for use throughout Portugal.

6.2. Introduction

About Coopérnico (EO1)

Coopérnico is based in Lisbon, Portugal, and was founded in 2013. It is the only renewable energy cooperative in Portugal and has more than 6,000 members. Coopérnico promotes the involvement of citizens in the energy transition through cooperative investments in PV plants for organisations (charities and SMEs) and through supporting members and local energy communities to install individual and collective generation systems for their own consumption. Tackling energy poverty has been among Coopérnico's aims for many years and it has been working directly on the issue since 2020. Several Coopérnico staff and members of the cooperative were trained as energy advisers as part of the EU Horizon 2020 POWERPOOR project (2020 to 2023).

The Coopérnico pilot

As mentioned above, the evaluation addresses three key mechanisms in the Coopérnico CEES pilot project: an Identify mechanism, a Funding mechanism and an Alleviate mechanism. In practice, these three mechanisms were integrated to some extent in the Coopérnico pilot. For instance, the work on the Fund mechanism was carried out as part of the Identify mechanism. For ease of presentation, In the sections that follow, the different mechanisms are separated out into different sections.

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Timescales

The timescales for the activities in Coopérnico's pilot are shown in Table 6.1.

	2022			2023				2024	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Identify: Setting up a new network of local partners									
Alleviate: Workshop programme.									
Alleviate: Home visit programme.									

Table 6.1. Timescales for the Coopérnico pilot project.

Organisational structure

The Coopérnico pilot project was implemented mainly by two staff members, both of whom had been trained as energy advisors as part of the earlier Horizon 2020-funded POWERPOOR project (2020 to 2023). This core team was supported by a senior manager and by several other staff members, as required. The CEES project team was able to operate largely independently of approvals from other departments in Coopérnico.

6.3. Identify: workshops (EO3)

Introduction

The Coopérnico mechanism for identifying people to participate in the Energy Café workshops had two elements:

1. Developing relationships with regional and local partners (starting with energy agencies and municipalities) in the greater Lisbon area.
2. Working with the local partners to set up a series of Energy Café workshops for older people, as part of the programme of events that are already run by the partners.

These two elements are discussed below. It is important to note that the Coopérnico Fund mechanism (the co-funding of energy boxes by local partners) also took place as part of this Identify mechanism and had an impact upon it. This is discussed in section 6.5 below.

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Developing local partnerships

Process

Inspired by ALIenergy's referral network approach, Coopérnico's Identify mechanism started by developing relationships with a network of relevant public and third sector organisations in the greater Lisbon area, such as energy agencies and municipalities. The purpose of the network was to set up opportunities for Coopérnico to implement a series of workshops and home visits. Coopérnico was not a familiar organisation to the households with whom it hoped to work. Therefore, the Coopérnico team noted that working in partnership with other organisations allowed Coopérnico to *'borrow some trust and legitimacy'*, as the team put it, from the partners.

Challenges

Coopérnico was able to identify and contact relevant individuals in relevant regional partner organisations (such as energy agencies and municipalities) fairly easily. However, the key challenge for Coopérnico was that it took far longer than expected for the organisations to respond to Coopérnico's propositions. Part of the challenge here, Coopérnico reflected, was that energy poverty was not seen as a significant problem by the potential partners. Other challenges emerged within the context of setting up the Energy Café workshops. These are discussed below.

Setting up Energy Café workshops

Process

In 2022, Coopérnico and its partners jointly decided to focus on a workshop programme for older people for two reasons. First, this group is often more likely to experience energy poverty than the general population in Portugal (in the Portuguese context, this is often related to meagre incomes, old and big family houses, low levels of literacy, health issues)[25]. Second, because the network partners often have programmes of weekly events into which the Energy Cafes could be easily scheduled. This meant that participants were easily recruitable by the partner organisations. Thus, from late 2022 to the end of 2023, the workshop programme focused on older people.

[25] This judgement was based on information from the Energy Poverty Advisory Hub, the Portuguese national statistics authority (Instituto Nacional de Estatística) and the *Energy Poverty in Portugal: A municipal analysis* report (Portuguese only).

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Later in the pilot, Coopernico and its local partners organised further workshops in 2024 that were aimed at other demographic groups. Participants were invited to these workshops without any consideration of whether they were in energy poverty or not.

In order to set up the workshops, the regional partners that Coopérnico was in contact with themselves contacted other more local organisations. These were largely parish councils and 'senior universities'. A key characteristic of these local partners is that they all had existing programmes of regular meetings and events for older people, within which a Coopérnico Energy Café could be easily scheduled.

An important aspect of the process of recruiting participants for the 2022-2023 Coopérnico workshops was that the local partners invited *all of the older people* who usually attended their events. The significance of this is that, although the process focused on older people, it did not specifically focus on older people in energy poverty. The key reason for this approach is that it would have been inappropriate and impractical to try to differentiate between older people in energy poverty and those not in energy poverty. In addition, as one of Coopérnico's partners pointed out, if there will be a workshop on energy poverty, the more people that attend the better. The implications of this approach are discussed later.

Challenges and responses

Working through two sets of partners led to delays in setting up the Energy Café workshops. In an attempt to overcome this challenge, Coopérnico offered to liaise directly with the local partners, but this option was not supported by the energy agencies and municipalities. This comment by Coopérnico summarises this challenge:

> *It's very weird, because we contacted one municipality and they really looked like they were going to advance and they were eager and they were, "Please send me this and that, so that we can proceed as quickly as possible." Then all of a sudden, they just muted. Well, I talked to them, and I actually asked if I could contact the local association directly and if we could help them with what they were doing, and they said, "It's not hard, what we are doing, and you would just do what we are already doing."*

A further challenge in the process of setting up the Energy Café workshops was related to the funding of the energy boxes that would be used in the home visit element of the pilot. Coopérnico's proposal to the energy agencies and municipalities was that the workshops and home visits would be funded by CEES and the 'energy boxes' would be funded by the energy agencies and municipalities. Coopérnico reported that this financial commitment made it more challenging for these partner organisations to sign up to the energy box element of the Alleviate mechanism. Further, this was also a factor in the delays to the energy agencies' and municipalities' full commitment to the workshop element of the pilot:

> *'I think approvals for the workshops are easier for them because they wouldn't have to spend money on the workshops, but the energy box is a different story, I think still that's the most problematic bit.'*

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More generally, Coopérnico commented that everything in the Identify mechanism in their pilot project took longer than had been expected and planned:

> *'I would say, if you are planning a timeline for this kind of work, you should allow three times the amount of time you might expect.'*

Outcomes

As a result of these efforts in its Identify mechanism, Coopérnico was able to set up a total of 20 Energy Café and energy box delivery workshops between December 2022 and May 2024, that reached a total of 374 participants. Due to the different groups of participants, it makes sense to examine the workshop programme in two parts. As shown in Table 6.2, in the workshops in 2022 and 2023, the programme reached 266 older people in 13 workshops. In early 2024 (January to May), Coopérnico ran 7 workshops for a range of different groups (students, young people, school children, the parents of the children and some older people); these workshops reached a further 108 participants. A full breakdown of all of the workshops – including dates, types of participants, location, partners and numbers of participants – is shown in Tables 6.3 (over the page) and 6.4. Up to four further workshops were planned between June and August 2024.

Timing	Participants	Number of workshops	Number of participants
Late 2022-2023	Older people	13	266
January to May 2024	A range of groups	7	108
Total		20	374

Table 6.2. Summary of workshops and participants in the Coopérnico Energy café workshops.

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Date	Topic (participants)	Location	Local organisor	Other network partners	Number of participants
9/12/22	Spend Energy Well workshop	Sacavém, Loures	Academia dos Saberes (Universidade Sénior da Câmara Municipal de Loures) – Pólo de Sacavém	None	20
3/2/23	Spend Energy Well workshop	Alto Estanqueiro, Montijo	Academia Sénior de Atalaia e Alto Estanqueiro	Junta de Freguesia de Atalaia e Alto Estanqueiro; S.Energia	18
9/2/23	Spend Energy Well workshop	Montijo	Universidade Sénior do Montijo	Junta de Freguesia do Montijo; S.Energia	17
15/2/23	Spend Energy Well workshop	Pegões	Academia Sénior de Pegões	Junta de Freguesia de Pegões; S.Energia	40
17/2/23	Spend Energy Well workshop	Sarilhos Grandes, Montijo	Academia Sénior de Sarilhos Grandes	Junta de Freguesia de Sarilhos Grandes; S.Energia	34
17/3/23	Energy box workshop and delivery	Sarilhos Grandes, Montijo	Academia Sénior de Sarilhos Grandes	Junta de Freguesia de Sarilhos Grandes; S.Energia	17
12/4/23	Spend Energy Well workshop (older people)	Lavradio, Barreiro	AURPIL - Associação Unitária dos Reformados, Pensionistas e Idosos do Lavradio	Câmara Municipal do Barreiro; S.Energia	12
18/4/23	Spend Energy Well workshop (older people)	Bairro da Liberdade, Barreiro	Café - Centro Sócio Cultural do Bairro da Liberdade	Câmara Municipal do Barreiro; S.Energia	17
27/6/23	Spend Energy Well workshop (older people)	Alcochete	Junta de Freguesia de Alcochete	Câmara Municipal de Alcochete; S.Energia	42
29/6/23	Spend Energy Well workshop (older people)	Samouco, Alcochete	Junta de Freguesia do Samouco	Câmara Municipal de Alcochete; S.Energia	7
18/10/23	Energy box workshop and delivery (older people)	Passil, Alcochete	Centro Social do Passil	Câmara Municipal de Alcochete; S.Energia	5
18/10/23	Energy box workshop and delivery (older people)	Fonte da Senhora, Alcochete	Delegação da Junta de Freguesia de Alcochete de Fonte da Senhora	Câmara Municipal de Alcochete; S.Energia	8
18/10/23	Energy box workshop and delivery (older people)	Alcochete	Casa do Povo de Alcochete	Câmara Municipal de Alcochete; S.Energia	29
Total					**266**

Table 6.3. Details of the 2022-2023 Coopérnico workshop programme for older people.

Date	Topic (participants)	Location	Local organisor	Other network partners	Number of participants
28/2/24	Spend Energy Well workshop (children)	Alcabideche, Cascais	Ludoteca da Adroana	Câmara Municipal de Cascais	10
28/2/24	Spend Energy Well workshop (young people)	Alcabideche, Cascais	Ludoteca da Adroana	Câmara Municipal de Cascais	10
17/3/24	Spend Energy Well workshop (a mixed group, mostly older people)	Chelas, Lisboa	Casa dos Direitos Sociais	Grupo Comunitário da Flamenga; Câmara Municipal de Lisboa	21
15/3/24	Spend Energy Well workshop and energy box delivery (a mixed group, including the parents of some of the young people at earlier workshops)	Alcabideche, Cascais	Ludoteca da Adroana	Câmara Municipal de Cascais	17
21/3/24	Spend Energy Well workshop (students and residents)	Carcavelos, Cascais	NOVA School of Business and Economics	Câmara Municipal de Cascais	15
8/5/24	Mixed	Carcavelos, Cascais	Universidade Sénior de Sintra - Pólo Algueirão		20
14/5/24	Mixed	Carcavelos, Cascais	Ecoludoteca, São Domingos de Rana	Câmara Municipal de Cascais	15
Total					**108**

Table 6.4. Details of the 2024 Coopérnico workshop programme for a range of groups of people (January to May 2024).

The demographic characteristics of the older people who participated in the late 2022 and 2023 workshops and responded to the 'baseline' survey are shown in Table 6.5.

	Number of households (%)
Number of people in household	
1	39 (30%)
2	57 (44%)
3	23 (18%)
4/5	11 (8%)
Number of children (aged 17 or less) in household	
0	118 (91%)
1 to 3	12 (9%)
Number of older people (aged 65 and above) in household	
0	16 (12%)
1	54 (42%)
2	47 (36%)
3	2 (2%)
No answer	11 (9%)
One or more person with a disability or long-term illness	
Yes	27 (21%)
No	86 (66%)
No answer	17 (13%)
One or more person in paid employment	
Yes	74 (57%)
No	41 (32%)
No answer	15 (12%)
One or more adult male in the household	
Yes	78 (60%)
No	47 (36%)
No answer	5 (4%)
Type of property	
Purpose built flat or apartment	50 (39%)
House	68 (52%)
Other/no answer	12 (9%)
Tenure	
Owner occupier	93 (72%)
Private tenant	20 (15%)
Other/no answer	17 (13%)

Table 6.5. Demographic characteristics of older people who attended the late 2022 and 2023 Energy café workshops and completed the 'baseline' survey (n = 130).

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A further outcome of this work was that, as the result of a Coopérnico CEES dissemination presentation, Coopérnico was invited to conduct a week-long programme of activities in September 2023, in Braga (northern Portugal). During this visit, Coopérnico conducted two workshops for older people, 20 home visits (with 'energy box' delivery) and several energy poverty training events for selected employees in the municipality and local schoolteachers. These activities can be regarded as a legacy of the CEES project. Although it was not possible to formally evaluate these workshops as part of the CEES evaluation, Coopérnico reported that these events were largely successful and drew on learning in CEES and POWERPOOR. That said, Coopérnico also reported that the home visits had been set up by a local social housing provider. Unfortunately, the Coopérnico team felt that the home visits had been set up with insufficient choice by the householders; thus, when they conducted the home visits, the Coopérnico team spoke of feeling somewhat unwelcome in some cases.

It is important to address the extent to which the Coopérnico Identify mechanism targeted people in energy poverty. As discussed above, Coopérnico's Identify mechanism for the 2022/2023 Energy Café workshops largely relied upon the assumption that older people are more likely to be in energy poverty. This approach was certainly sensible in the circumstances because it would not have been feasible or appropriate to exclude some people who attended the partners' programmes of events; in addition, it has the advantage of being straightforward to implement. However, Table 6.6 shows that 29% of respondents to the 'baseline' survey that was implemented at the workshops said that they had 'no difficulty' paying their energy bill (and a further 8% indicating that they have almost no difficulty). Meanwhile, 20% indicated that they have great difficulty paying their energy bills (and a further 12% indicated that they have some difficulty). Although we should remember that, based on the CEES definition, difficulty paying energy bills is just one indicator of energy poverty, it would appear that Coopérnico's approach resulted in them working with higher than desired numbers of people who were less likely to be in energy poverty.

	Number (%)
1 - No difficulty	38 (29%)
2	10 (8%)
3	29 (22%)
4	15 (12%)
5 - Great difficulty	26 (20%)
No answer/Prefer not to say	12 (9%)

Table 6.6. 'Baseline' survey responses to the question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' (n = 130)[26].

[26] These surveys were administered at the workshops in 2022 and 2023 for older people (and not at the ones in 2024 for young people and students).

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With respect to the 2024 Energy Café workshops, which featured a variety of types of participants, these took place after the deadline for the collection of 'baseline' survey data (end of November 2023). Thus, 'baseline' survey data was not collected at these workshops and it is not possible to assess the extent to which this group had challenges paying their energy bills. However, in the view of the evaluators, since the 2024 workshops did not have any eligibility criteria and did not focus on a group that is assumed to face energy poverty, it seems unlikely that these workshops were focused on people in energy poverty. For future energy solidarity actions, it is important that Coopérnico considers this issue carefully.

On another note, Coopérnico observed that their 2023/2024 Energy Café workshops, for older people, were attended by more women than men. Coopérnico conjectured that this may be because women are 'more sociable' than men. At the same time, Coopérnico observed that the women often commented that the workshops were more relevant to their husbands because they deal with energy-related matters. The Coopérnico delivery team put it like this:

> *'There's another interesting thing that the public that we reach is mainly women, although many of them say, "My husband should have been here because he's the one that deals with the energy part." I believe they like these types of gathering more than men and maybe women are more eager to learn than men at this age. Maybe men are less open. '*

Identify: Home visits

Process

Coopérnico's original process for identifying households for the home visits was to recruit households at the Energy Café workshops, using the offer of an 'energy box' to further incentivise uptake.

Challenges

During the Energy Café workshops (which are discussed in more detail below), Coopérnico very quickly observed that householders were unwilling to sign up for home visits. There were a number of reasons:

- As older people, the workshops participants had often been warned about the need to protect their personal details (such as their phone numbers and addresses) and to take care of their security by not allowing 'strangers' in their homes.
- On the basis of past experiences with energy companies, this sometimes also took the form of concerns about being given the 'hard sell' in their own home. Despite the legitimacy and trust that Coopérnico 'borrowed' from its local partners, these concerns proved to be challenging.
- In addition, it is possible that the participants were concerned that allowing people to visit their home might in some way compromise them in terms of the benefits that they receive.

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Responses

As the home visit recruitment challenge became clear, Coopérnico developed a new Identify mechanism for the home visits. In autumn 2023, Coopérnico began to promote home visits through its 'follower' communication channels (largely newsletters and social media). In these communications, households were invited to apply online for a home visit.

Further challenges and responses

Early challenges with this approach included requests from households that were clearly not in energy poverty (a request for information about how to cost-effectively heat a swimming pool was a conspicuous example of this). In response to this challenge, Coopérnico made the focus on people in energy poverty clearer and made the application process more stringent.

Outcomes

As a result of these efforts, Coopérnico was able to set up 20 home visits in the greater Lisbon area. These took place in December 2023 and early 2024. Since the Coopérnico home visits took place after the deadline for the collection of 'baseline' survey data (end of November 2023), this was not collected and it is not possible to provide a guide as to the extent to which this group had challenges paying their energy bills. The process by which the Coopérnico home visits were implemented is discussed and evaluated later in the chapter.

6.4. Fund (EO2)

Process

As described earlier, Coopérnico's original plan was for the energy boxes to be funded by the partners and the implementation of the home visits to be funded by Coopérnico.

Challenges and responses

However, as was explained earlier, it was challenging for the partners to commit to funding the energy boxes. In response to this challenge, Coopérnico continued negotiations with the partners through 2023. In addition, towards the end of 2023, it became clear that Coopérnico would be able to fund some energy boxes itself.

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Outcomes

Funding for energy boxes was ultimately secured from one of the energy agency partners (S.Energia, 37 energy boxes, €500) and one of the municipalities (Cascais, 26 energy boxes, €460 out of €3000 spent in Cascais). Further energy boxes were funded by Coopérnico (48 energy boxes, €650).

6.5. Alleviate: Energy Café workshop processes (EO4.1)

With minor variations and developments, the Coopérnico Energy Cafés had the following structure and characteristics. Relevant specific successes and challenges are included directly after each characteristic:

A Coopérnico workshop for older people.

- The workshops were delivered by two Coopérnico staff members. Both of these individuals had previously trained as energy advisors as part of the earlier EU Horizon 2020 POWERPOOR project.

- The energy advisors often travelled to the workshop locations by public transport as well as by car when there were energy boxes to take.
  Challenges: Travelling to workshops by public transport was time-consuming and sometimes challenging with workshop materials. Finding the workshop venues was sometimes challenging.

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'Energy boxes' ready to be transported to a workshop.

- The workshops were also attended by one or more of the local partners with whom Coopérnico set up the workshops.

- The workshops were referred to as Energy Cafes because Coopérnico brought refreshments for the participants. Respondents in different workshops responded to this in different ways. In most cases, the refreshments were appreciated.
  Challenges: In one case, the refreshments were not touched because it was 'the wrong time of day', while in another case the team got the impression that some participants felt that the refreshments were inadequate.

- The workshops lasted approximately two hours and covered the following topics, usually in this order:
  1. Introduction of presenters, Coopérnico, CEES. Thanks to hosts.
  2. Understanding the energy bill, tariffs, and the social tariff.
  3. CEES 'baseline' survey, intermixed with the presentation (NB: only at the 2022-2023 workshops for older people).
  4. Energy efficiency in appliances and lighting.
  5. Energy efficiency in thermal comfort and insulation.
  6. Self-production or prosumption (e.g. solar PV) (not in all sessions)
  7. Provision of energy boxes (in second workshops and in later first workshops).
  8. Next steps (as appropriate): offer personalised help, offer energy boxes, offer support to funding applications.

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A Coopérnico workshop for older people.

- The Coopérnico team ran the workshops in an informal, conversational way. As this quote illustrates, the Coopérnico team felt that this contributed to the success of the workshops:

'We wanted it to be like a conversation between friends, between people that know each other, so we made it very informal. I think we are likeable people, so it was easy for everyone to create some empathy, and that's a strong word, but I think it's the word that we have to use, because they didn't feel intimidated, they didn't feel restrained. They really felt that they could share their experience and that we were there to learn with them also, and that was an incredible experience.'

Workshop participants with 'energy boxes'.

- Drawing on advice from Les 7 Vents, the team made sure to ask the participants to share their own tips as well as offering their own advice. The Coopérnico team felt that this was a successful approach, as they put it:

'The participants shared their knowledge. So, we asked them to tell us what they already do, and then we complemented the ideas – that's the tip that we had, to not show up like we know everything, but let people say first what they do and what is easier for them to do. And it was a very dynamic session. They were really engaged. It was fun. It was light. I think they definitely took the information with them, so they were really interested in knowing more, in knowing how to save energy. That was very great, yeah.'

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Challenges: Although this was a successful approach, the Coopérnico team also reflected that this can take up precious time in a relatively short workshop. Thus, the team reflected on the facilitation skills that they developed to manage this appropriately.

- The Coopérnico team administered the evaluation 'baseline' survey and 'engagement' survey on paper during the workshops.
  Challenges and responses: It was very challenging and time-consuming for the team to support a large group of older people to complete the surveys all at once. This challenge was addressed in two ways in the later workshops: the Coopérnico team helped the participants to complete the survey in stages and a more straightforward version of the survey was used.

A Coopérnico workshop for older people.

6.6. Alleviate: short term household experiences and impacts (EO4.2)

Participant experiences of the Energy Café workshops

The CEES 'engagement' survey was designed to understand participants' experiences and the immediate impacts of the engagement events at which energy advisors engaged with householders to provide support. In the case of the Coopérnico pilot, this is the Energy Café workshops and the home visits. This section addresses the Energy Café workshops.

The 'engagement' survey was completed by 49 (18%) of the 266 older people who attended the 2022/2023 workshops and by 36 (33%) of the 108 participants in the 2024 workshops. The findings from this survey are shown in Table 6.7. The table shows that levels of satisfaction with the two sets of workshops was high or very high (agreement with the positive statements ranging from 71% to 97%). These findings suggest that the Coopérnico workshops were well-run, suited the needs of participants and were run in a respectful way. Across the measures, it is noticeable that the level of agreement is

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higher for the 'other' groups than it is for the older people, although disagreement is not different. This could be related to the fact that the 'baseline' survey, which was problematic to implement in the 2022/2023 workshops, was not implemented in the 2024 workshops. Alternatively, this might be related to the challenges of supporting older people in a workshop environment.

	Agree	Neither	Disagree
The workshop was well-run			
Older people (2022/2023)	43 (88%)	5 (10%)	1 (2%)
Other groups (2024)	34 (94%)	1 (3%)	1 (3%)
The workshop suited my needs			
Older people (2022/2023)	35 (71%)	13 (27%)	1 (2%)
Other groups (2024)	31 (86%)	4 (11%)	1 (3%)
The workshop was conducted in a respectful way			
Older people (2022/2023)	45 (91%)	3 (6%)	1 (2%)
Other groups (2024)	35 (97%)	1 (3%)	0 (0%)

Table 6.7. Household experiences of the Energy Café workshop programme (Older people: n = 48/49; Other groups: n = 36).

The 'engagement' survey also contained three open text questions. The responses to these questions further emphasise the positive experiences of householders and were common to both sets of workshops:

- In response to the question, 'What was the best aspect of today's workshop?', participants offered a wide variety of positive responses. Common themes in these comments focused on the value of 'tips' and 'information', as well as the clarity and the highly personable style of the presentations.
- In response to the question, 'Was there anything you didn't like or didn't work for you?', very few participants offered a response. One respondent commented on the explanation of solar PV options while several commented on the complexity of the survey.
- In response to the question, 'Is there anything further you would like to add?', further positive comments – similar to those above – were provided by a few participants.

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Immediate impacts of the Energy Café workshops

The CEES 'engagement' survey also contained two questions about the immediate impacts of the two sets of Energy Café workshops. Table 6.8 shows that the responses to these questions were also positive. More than 70% of the respondents agreed that they had 'learned practical information and skills' and 'feel more confident' about reducing energy consumption and costs. Once again, across the measures, it is noticeable that the level of agreement is higher for the 'other' groups than it is for the older people.

	Agree	Neither	Disagree
I learned practical information and skills to help me reduce my energy consumption and costs.			
Older people (2022/2023)	28 (79%)	9 (19%)	1 (2%)
Other groups (2024)	36 (100%)	0 (0%)	0 (0%)
I feel more confident than before that I can reduce my energy consumption and costs.			
Older people (2022/2023)	35 (73%)	11 (23%)	2 (4%)
Other groups (2024)	35 (97%)	0 (0%)	1 (3%)

Table 6.8. Immediate impacts on households in the Energy Café workshop programme (Older people: n = 49; Other groups: n = 36).

6.7. Longer term experiences and impacts of the Energy Café workshops

Introduction

In Coopérnico's pilot, the 'baseline' survey was administered at the 2022/2023 workshops for older people. However, the 'baseline' survey was not administered at the 2024 workshops, for other groups; this was because they took place after the November 2023 deadline for the collection of 'baseline' survey data. The 'follow-up' survey was conducted between three and six months after the 2022/2023 workshops. This was sometimes done by the Coopérnico team and sometimes by the partners at later meetings of the groups. The 'follow up' survey was not implemented for the 2024 workshops. This means that the following analysis applies only to the 2022/2023 workshops for older people.

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Longer term experiences

The Coopérnico 'follow-up' survey contained four retrospective questions about longer term experiences of the programme. The survey was completed by 49 older people (18% of the total number of participants), three to six months after the workshops that were discussed above. The findings from this survey are shown in Table 6.9. These results provide further evidence that Coopérnico Energy café workshop programme was successful in terms of its process. Across these four questions, the level of agreement with the statements is 75% or above. Three to six months after their participation, responding households in the programme clearly felt that the programme was well-run (80%) and that the energy advisors listened and were respectful (92%). The slightly lower level of agreement that the programme was adaptable to suit their needs (75%) can be explained by the fact that, from the perspective of the participants, the Energy Café workshop was part of a longer term programme of events; thus, participants might have attended for reasons other than an interest in energy. Finally, an impressive 94% of participants agreed that they would recommend the programme to others.

	Agree	Neither	Disagree
I think that the programme was well run.	39 (80%)	9 (18%)	1 (2%)
I felt listened to and respected by the people who were delivering the programme.	45 (92%)	3 (6%)	1 (2%)
I feel that the programme was adaptable to suit my needs.	37 (76%)	9 (18%)	3(6%)
I would recommend the programme to other people who struggle to pay their energy bills.	46 (94%)	2 (4%)	1 (2%)

Table 6.9. Longer-term household experiences of the Coopérnico Energy café workshop programme (n = 49).

Longer term impacts: 'baseline' and 'follow up' surveys

Introduction

As described in more detail in Chapter 2, longer term impacts of the pilot projects were examined by comparing each household's responses to a 'baseline' survey to their responses to an identical 'follow-up' survey. Once the Coopérnico 'baseline' and 'follow-up' data had been cleaned and integrated, 43 matched pairs of households were available for analysis; this is 16% of the 266

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participants at the 2022/2023 older person workshops. Differences between the 'baseline' survey data and the 'follow-up' survey data were examined using the Related-samples Wilcoxon signed-rank test, with a confidence level of 90% required to establish significant changes. As discussed earlier, 90% was used due to the relatively small sample sizes. It is important to note that any changes between the 'baseline' and 'follow-up' surveys cannot be straightforwardly attributed to participation in the Energy Café workshop programme. This is because changes might be the result of other factors, such as seasonality, which could not be controlled for.

The results of this analysis are presented in the tables below. These tables show all of the items from the 'baseline' and 'follow-up' surveys that relate to energy poverty. Items where a statistically significant change was identified, with a 90% level of confidence, are highlighted in green. The tables also show the means for the variables in the 'baseline' and 'follow up' surveys, as well as the difference between the means. Finally, the tables offer a description of the statistically significant changes.

Findings

The findings in Table 6.10 and Table 6.11 suggests that there was only limited statistically significant change in householders' responses between the 'baseline' survey and the 'follow-up' survey. Although the mean score for ability to pay the energy bill declined, indicating that paying the bill became easier, this was not a statistically significant finding (at 90% confidence).

It is interesting to observe that the three survey items where change appears to have taken place all indicate increased self-restriction of access to energy services. Although it is difficult to be sure, this may suggest that, as a result of the Energy Café workshops, householders were thinking about and restricting their energy use more than they had been before the workshops. Noticeably, difficulty paying bills had decreased a little, although not to a statistically significant level. However, other explanations are also possible. There do not appear to be changes with respect to the negative impacts of energy poverty. It is important to note that these findings are based upon relatively small sample sizes (between 24 and 37 for different items). Nonetheless, given that the experiences of the workshop participants was very positive, both immediately after the workshops and between three and six months later, these findings illustrate how challenging it can be to translate these positive experiences into measurable change.

There was a further set of items in the 'baseline' and 'follow up' surveys, addressing issues relating to energy know-how and understanding, that was not used in the Coopérnico surveys. The reason for this is that Coopérnico decided that it would be too challenging to try to gather this additional data within the older person workshop context.

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Survey items	'Baseline' survey mean	Follow-up survey mean	Difference between means	Description of change
Difficulty affording energy bills. 1: No difficulty; 5 = Great difficulty (n = 39).	3.46	3.16	-0.30	-
Self-restriction of access to energy services in order to be able to afford energy bills. 1: Not restricted at all; 5: Restricted to a great extent.				
Heating (n = 37)	3.16	3.12	-0.04	
Cooking (n = 30)	1.59	2.68	1.09	Increased self-restriction
Refrigeration (switching off fridge or freezer) (n = 28)	1.89	2.42	0.53	-
Cooling the home (n = 26)	3.07	3.33	0.26	-
Doing laundry (n = 36)	1.97	2.65	0.68	-
Heating hot water (n = 32)	2.35	2.85	0.50	-
Lighting (n = 33)	2.30	3.14	0.84	Increased self-restriction
Running electronic devices (for example, TVs, computers and phones) (n = 33)	2.06	2.90	0.84	Increased self-restriction

Table 6.10. Household responses to the 'baseline survey' and 'follow up' survey in the Coopérnico Energy Café workshop programme (paying bills and self-restriction of access to energy services). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Negative impacts on household of challenges paying for energy: 1: No impact at all; 5: A lot of impact				
Physical health or well-being (n = 32)	2.33	2.55	0.22	-
Mental health (n = 31)	2.19	2.52	0.33	-
Ability to study at home (n = 24)	2.14	2.08	-0.06	-
Ability to work at home (n = 28)	2.06	2.15	0.09	-
Ability to have visitors in the home (n = 31)	2.30	2.34	0.04	-
Feeling of pride in the home (n = 31)	2.28	2.24	-0.04	-
Feeling comfortable in the home (n = 30)	2.42	2.38	-0.04	-
Feeling safe and secure in the home (n = 31)	2.09	2.31	0.22	-
Ability to access online/digital communication services … (n = 27)	2.19	2.19	0.00	-
Ability to enjoy recreational activities in the home (n = 26)	2.10	2.14	0.04	-

Table 6.11. Household responses to the 'baseline survey' and 'follow up' survey in the Coopérnico Energy café workshop programme (negative impacts of problems affording energy).

Longer term impacts: the follow-up survey

The Coopérnico 'follow-up' survey contained five questions that retrospectively asked households about changes during the period since their participation in the Energy Café programme. The results are shown in Table 6.12. The findings from these questions indicate that the Energy café workshop programme produced impacts for participants in some respects. For instance, more than 80% agreed that they had learned about using less energy and reducing costs. In addition, a smaller proportion (around half) agreed that they thought their energy bills would be lower, and that the physical and mental health of their household had improved since the workshops.

	Agree	Neither	Disagree
I have learned more about how to use less energy through participation in the project.	43 (88%)	4 (8%)	2 (4%)
I have learned more about how to save on the cost of energy through participation in the project.	39 (80%)	5 (10%)	2 (4%)
I think my energy bills will be lower through participation in the project.	27 (55%)	11 (22%)	11 (22%)
Participating in the project has improved the physical health of my household.	23 (47%)	15 (31)	11 (22%)
Participating in the project has improved the mental health of my household.	26 (53%)	12 (25%)	11 (22%)

Table 6.12. Longer-term household impacts of the Energy Café workshop programme (n = 49).

6.8. Alleviate: Home visits process (EO4.1)

Introduction

As was mentioned earlier in this chapter, Coopérnico experienced challenges recruiting participants for home visits at the Energy Café workshops. In response, Coopérnico then employed an approach in which it identified potential recipients of home visits through its communications with its social media 'followers' and newsletter subscribers to an online application process in its website (which was tightened over time). The purpose of this section is to examine the Alleviate mechanism through which the home visits were implemented.

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Process

As part of the POWERPOOR project (which ended in August 2023), Coopérnico developed and trained a network of 165 volunteer energy advisors in the greater Lisbon area. During the autumn of 2023, the core of this network (around 8-10 volunteers) was briefed to undertake home visits and other individual energy advice sessions (and later to also deliver 'energy boxes'). The volunteers were given access to basic information about the households that had applied for support, why they wanted a home visit and their location. On this basis, the volunteers themselves selected households that they were able to visit. Coopérnico reported that the home visits consisted of the following elements:

> *'The home visit is done through normal conversation, talking about energy supply, thermal comfort, humidity and mould, the building itself, windows and doors etc. Then the role of the volunteers is to give some tips and knowledge to increase the energy know-how and literacy of the beneficiaries*

Through the 2023-2024 winter, the volunteer energy advisor network was then supported and motivated through monthly online meetings through sharing experiences, successes and challenges. In some meetings, specific energy and energy poverty issues, such as the impact of humidity on health, were discussed.

Challenges

Coopérnico reported that the group of 8-10 volunteers needed considerable support to keep them motivated and active. In addition, the volunteers often complained about having to complete the 'engagement' survey with householders. Coopérnico addressed this issue by explaining the value of evaluation in terms of securing further funding for the work.

Outcomes

As a result of these efforts, the team of Coopérnico volunteers completed 20 home visits during late 2023 and early 2024.

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6.9. Alleviate: home visits - household experiences and impacts (EO4.2)

The 'engagement' survey was completed by households at 13 home visits. This represents 65% of the 20 home visits The results from these surveys are shown in Table 6.13.

	Agree	Neither	Disagree
The home visit was well-run	12 (92%)	1 (8%)	0 (0%)
The home visit suited my needs	12 (92%)	0 (0%)	1 (8%)
The home visit was conducted in a respectful way	12 (92%)	1 (8%)	0 (0%)
I learned practical information and skills to help me reduce my energy consumption and costs.	12 (92%)	0 (0%)	1 (8%)
I feel more confident than before that I can reduce my energy consumption and costs.	11 (85%)	1 (8%)	1 (8%)

Table 6.13. Household experiences of the Coopérnico home visit programme (n = 13).

The findings in Table 6.13 show that respondents' experiences of the Coopérnico home visits were typically very positive; respondents felt that the home visits were well run, respectful and suitable for them. In addition, the table shows that the home visits were impactful in terms of learning and confidence.

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6.10. Alleviate: energy boxes (EO4.1)

Processes

The Coopérnico energy boxes contained: a power socket with a timer; draught exclusion strip for windows; power extension with switch; LED bulb; draft exclusion strip for doors (in some cases). In addition to the items themselves, Coopérnico also created a leaflet to explain how to use each item in the energy box.

Coopérnico undertook the entire process of compiling the energy boxes. This included: ordering items, collecting or taking delivery of items, assembling the energy boxes, and transporting/ delivering the energy boxes to workshops or to volunteers.

Challenges and responses

As might be expected, purchasing and compiling the energy boxes was a challenging and time-consuming process. This was often because preferred items were advertised by suppliers as 'available for order' but were in fact out of stock. This led to changes to the contents of the energy boxes and additional time seeking items from other suppliers. Importantly, Coopérnico also commented on the need for storage space and private transport to undertake the task of transporting the energy boxes to various locations.

As was discussed earlier, the original plan for the energy boxes was for them to be delivered in home visits to a sub-section of households that would be recruited at the workshops. However, this was not possible due to the concerns of the workshop attendees. Coopérnico responded to this challenge in three ways:

- Some energy boxes were delivered in the home visits by the volunteer energy advisors.
- Some energy boxes were taken to the later Energy Café workshops and were given to the workshop participants, along with an explanation of how to use the various items.
- With respect to the earlier workshops, some of the energy boxes were given to the participants at second workshops (with the same participants) that were organised for this purpose.

Outcomes

Coopérnico made a total of 111 energy boxes up to March 2024. These were used in a combination of: home visits by the volunteer energy advisors (9 energy boxes); at the later Energy Café workshops (47 energy boxes); and at the repeated workshops from earlier in the Energy Café workshop programme (55 energy boxes).

Coopérnico reported that the workshop participants' reactions to receiving the energy boxes was generally positive. Many of the workshop participants told the Coopérnico team the items were very

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useful, and some said that they were not previously aware that power sockets with a timer were available. Some commented these power sockets would enable them to better plan their energy usage and save money.

6.11. Impacts and experiences for local partners (EO7)

The purpose of the CEES 'local partner' survey was to understand, where appropriate, the experiences of local partners in the CEES pilot projects. In the case of Coopérnico, this refers to all of the local partners who were involved in setting up the workshops. Some of the local partners also attended one or more workshop. Coopérnico sent the local partner survey to eight of the local partners with whom they set up the Energy Café workshops. Seven of the local partners responded to the survey. The responses to the quantitative questions in the 'local partner' survey are shown in Table 6.14. The table suggests that the views of the local partners are somewhat mixed: this is indicated by the relatively high levels of neither agreeing nor disagreeing with the statements and by the observation that the highest level of agreement with the positive statements is 4 people (57%). That said, it is positive that 57% of respondents said that the Coopérnico project was well-run and that they would be keen to collaborate further with Coopérnico. In addition, there is relatively little disagreement with the statements.

The qualitative responses offer some clues as to the reasons behind these mixed findings. Among the positive comments, local partners highlighted they were able to reach audiences that they had not reached before, the role in this of the network that Coopérnico set up and the tips and information that Coopérnico provided in the workshops. Somewhat surprisingly, given the positive responses of the participants themselves, one local partner suggested that the information provided in the workshops amounted to 'very little'. Other more negative comments focused on the challenges – that have been discussed earlier – that the Coopérnico team experienced with securing home visits at the workshops and with implementing the 'household' surveys in the workshops.

These mixed findings suggest that it would be useful for Coopérnico to undertake activities designed to consolidate and develop the local network of organisations This could be achieved in a co-creation workshop for the local partners (in person or online) at which the following activities could be undertaken: review of the 2022-2024 Energy Café programme and the evaluation findings; giving local partners opportunities to describe their own objectives for the Energy Cafes and their experiences of the 2022-2024 programme; and the co-design of developments to the programme for the future.

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	Agree	Neither	Disagree
I think that the project has had a positive impact on energy poverty in participating households.	1 (14%)	5 (71%)	1 (14%)
I think that the project has had a positive impact on my own or my organisation's ability to work on energy poverty.	2 (29%)	4 (57%)	1 (14%)
I think that the project has enhanced my own or my organisation's appreciation of and respect for the challenges faced by households in energy poverty.	2 (29%)	4 (57%)	1 (14%)
I think the project was well-run by Coopérnico.	4 (57%)	2 (29%)	1 (14%)
I think the project has created and/or supported local networks of organisations and individuals working on energy poverty.	2 (29%)	3 (43%)	2 (29%)
I would be keen to collaborate on future energy poverty work with Coopérnico.	4 (57%)	2 (29%)	1 (14%)

Table 6.14. Feedback from Coopérnico's local partners (n = 7).

6.12. Impacts on Coopérnico: the legacy of the pilot (EO6)

Participation in the CEES project has produced the following impacts and legacies for Coopérnico:

1. At the start of the CEES project, key Coopérnico staff had been trained as energy advisors (in the POWERPOOR project) but did not have direct practical experience of running projects designed to alleviate energy poverty. During the CEES project, Coopérnico has developed and refined the knowledge, skills and processes to implement energy solidarity projects, particularly through workshops and home visits, and particularly in collaboration with local partners. That said, it is important for Coopérnico to consider ways in which its processes would allow it to more effectively focus on people in energy poverty.

2. Coopérnico has developed a group of local partners in the greater Lisbon area to work together on energy solidarity. With the network review work proposed in the previous section, this network can be consolidated and developed to support future work in the Lisbon area. This network is now being extended into other regions in Portugal (see below).

3. As a result of work in its CEES pilot project, Coopérnico had the opportunity to implement a programme of two Energy Café workshops, 20 home visits and several training workshops in

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Braga in the north of Portugal (following the approach that was established in CEES). This suggests that Coopérnico is now in a position to develop further partnerships and implement further workshops across Portugal.

4. Participation in CEES has also inspired Coopérnico to consider future plans for fund-raising (in addition to the co-funding work that it did in CEES). In particular, Coopérnico is considering the implementation of a microdonations scheme for its electricity customers, along the lines of the Energie Solidaire model.

6.13. Key learning from the Coopérnico pilot

Preparing for energy solidarity work

1. The Coopérnico pilot illustrates the value of comprehensive training for energy advisors (in the Coopérnico case, this was undertaken as part of the earlier POWERPOOR project).

2. The Coopérnico pilot demonstrates the value of an organisational structure that allows work on energy poverty to be planned and implemented independently of the need for approvals from other internal departments. The pilot also highlights the value of a small core energy solidarity team that can draw on the input of others as appropriate.

3. The Coopérnico pilot project also emphasises that it takes a long time to set up and implement energy solidarity actions; this is important when planning this work.

Fund

1. The Coopérnico pilot highlights the potential benefits of asking local partners to co-fund energy solidarity work.

2. At the same time, the pilot shows how this approach might present challenges for local partners and thus slow down or jeopardise the development of productive relationships with local partners.

Identify

1. The Coopérnico pilot demonstrates that working with local partners to set up energy solidarity workshops, as part of already-existing programmes of regular events, can be highly productive in terms of reaching relatively high numbers of people relatively straightforwardly.

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2. At the same time, despite a focus on older people, the pilot shows that this 'open to all' approach, with no eligibility criteria, is likely to weaken the emphasis on people in energy poverty.

Alleviate

1. The Coopérnico pilot illustrates that a lack of trust among householders can have a significant impact on the potential for home visits to be implemented. The pilot also shows that inviting applications for home visits can overcome this challenge to some extent (although it should be noted that it was Coopérnico's social media 'followers' and newsletter subscribers that were invited, which is likely to be a very small proportion of those in need of support.

2. The evaluation shows that the workshop approach taken by Coopérnico has the potential to increase knowledge and understanding of energy-related matters among participants.

3. However, the pilot suggests that it can be challenging to convert this learning into consistently measurable impacts on energy poverty. This was within a workshop context, which is less household specific than a home visit, for example.

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7. Enercoop

7.1. Summary

The evaluation report addresses the following mechanisms.

The new CEES mechanism

1. **Alleviate:** a telephone-based energy poverty advice service, known as the Energy Solidarity Taskforce (inspired by ALIenergy), with associated training of energy advisors.

Additional mechanism

2. **Identify**: participating households were drawn from Enercoop customers who were in arrears on their energy bills and were in receipt of the 'energy cheque' from the French government.

Evaluation summary

Introduction

The objective of the CEES Enercoop pilot project was to implement an Alleviate mechanism. This was a telephone helpline (known as the Energy Solidarity Taskforce) for its customers who were in arrears with their Enercoop energy bills and new Enercoop website material to support energy poverty alleviation and broader energy demand reduction across its customer base.

A key feature of the Enercoop pilot is that it was implemented with the involvement of three Enercoop teams: the International projects team managed the project, while staff in the Customer Service and Revenue Protection teams delivered the project. This created challenges because changes to the Taskforce needed to be discussed and agreed across three departments and at director/board level. Enercoop implemented a training day in January 2023 that was appreciated by the trainee energy advisors. Nonetheless, some of the trained energy advisors remained uncomfortable working on energy poverty alleviation with households. This meant that some staff felt pressure to do this work and some staff may have been ill-suited for this work in terms of their social instincts and soft skills. Further, the

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project managers noted that there was a difference in 'work culture' between the Taskforce project managers and the staff in the two delivery teams. Finally, the challenging workloads that were already present in the two teams were exacerbated due to the additional work on the Taskforce.

Identify

As noted above, participating households were drawn from Enercoop customers who were in arrears on their energy bills. The process to bring these customers consisted of four stages and required some effort on the part of the householders. The evaluators noted during formative evaluation that this process was overly cumbersome, and the project management team came to agree with this view. However, due to the organisational challenges described earlier, it was not easy for the project managers to make changes in response to this. This is likely to have slowed the progress of households to the Taskforce.

Alleviate

Despite these challenges, the Enercoop Solidarity Taskforce was able to support 261 Enercoop customers through the telephone helpline (between February 2023 and May 2024). The telephone consultations largely consisted of the provision of energy advice and advice about potential sources of financial support. The short-term and long-term responses of these participants was largely positive in terms of experiences and impacts. In addition, the evaluation data suggests that paying energy bills became less challenging for participants; though, it should be noted that this is based on a relatively small sub section of the households and that the seasonality of energy consumption may have played a part in this. Turning to the new Enercoop website material, the most popular of the new webpages (relating to the French national renovation grant scheme) received 2,397 visits.

Legacy

In terms of the legacy of the Enercoop CEES pilot, in September 2023, the Enercoop board agreed with the Taskforce managers' proposals to continue the Taskforce beyond the CEES project and to redesign the Taskforce in response to the challenges that were described above. Thus, in September 2024, Enercoop relaunched the Solidarity Taskforce as an independent team of four within the Enercoop Customer Relations team, with a dedicated budget, and with representation at board level. The four team members were drawn from the Customer Relations team. In addition, the training that was implemented in CEES has been enhanced to include more material relating to the specific challenges of working with people in energy poverty. Finally, households will be directed to the new Solidarity Taskforce from several Enercoop teams, using a more straightforward process, and the range of advice has been broadened and deepened.

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7.2. Introduction

Enercoop

Enercoop is a national French network of 12 renewable energy cooperatives located in the 12 French regions. Enercoop has 89,000 domestic clients. With 160 employees in the head office (and a further 280 across the network), Enercoop is considerably larger than the other CEES pilot partners. Enercoop was established in 2005 and is based in Paris.

The Enercoop pilot (EO1)

As mentioned above, the evaluation addresses the two key mechanisms in the Enercoop CEES pilot project: the Alleviate mechanism and the Identify mechanism.

Pilot timescales

The timing of the Enercoop pilot project is shown in Table 7.1.

	2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2
Training the Taskforce						
Implementing the Taskforce						

Table 7.1. Timescales for the Enercoop pilot project.

Organisational arrangements

Across the time of the project, the Enercoop pilot was managed sequentially by three different managers from the Enercoop International projects team. The change in managers was due to a maternity leave and a staff member leaving Enercoop. While these challenges are normal within projects, it is noticeable that this had an impact on project management delivery. The Energy Solidarity Taskforce itself was made up of staff from two other teams in Enercoop: the Customer Service team, which deals with general customer queries, and the Revenue Protection team, which pursues overdue payments. Thus, the pilot project was a collaboration between three internal Enercoop teams. It is important to note that Enercoop is a much larger organisation than the other CEES partners and operational plans need to be approved at director/board level.

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7.3. Identify (EO3)

Process

Like several of the CEES pilot projects, Enercoop's approach to identifying households for the Energy Solidarity Taskforce was shaped by concerns about having either too many or two few households in its pilot. Enercoop said:

> *'We're not going to give the Taskforce email address right away to all of the clients in energy poverty because we don't know what amount of people that will bring, so we will start slowly.'*

With this concern in mind, Enercoop selected households that had arrears on their energy bills for attention from the Taskforce. These households then went into the following Identify process:

1. Households were telephoned by the Revenue Protection team to inform them about:
    a. The new energy poverty FAQs page on the Enercoop website.
    b. The availability of energy poverty advice and support from the Taskforce.
    c. The email address that they should use to contact the Taskforce.
2. Enercoop then followed this with an email from the Taskforce email address, inviting the households to take advantage of the Taskforce service.
3. Households who wished to use the Taskforce service responded to this email.
4. The Customer Service team then contacted the household to provide the Taskforce service.

Challenges

The most significant challenge that Enercoop experienced, throughout the implementation of the Identify and Alleviate mechanisms, was at the organisational level. This was related to the collaboration between the International Projects team (which was managing the Taskforce project) and the Revenue Protection and Customer Service team (which were implementing the project). This challenge had a number of aspects to it:

- The collaboration was between teams that have separate management structures that extend up to director level within Enercoop. Thus, when the Taskforce managers wished to adapt or develop the Taskforce process, the issues needed to be discussed at managerial level between the three teams and then approved at director/board level. This meant that the project was not agile, flexible or adaptable and developments took a very long time to be agreed and implemented.
- Very early in the development of the Taskforce project, it became apparent to the pilot project managers that there were 'cultural differences' between the International team and the Customer Service/Revenue Protection team. As the quote below suggests, these were related to the work practices, staff backgrounds and management styles in the different teams.

> *'There are some cultural differences between different teams in Enercoop. For us as project managers we are really flexible, and we really don't have the same culture or*

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background as the customer service or revenue recovery teams. They are working with a really tight schedule and they have to answer the phone, there is no spare time for doing some meeting, brainstorming and experimenting. They have really specific things to do and they are tightly managed to respect that, and they can't say, "Oh yeah, let's go grab a cup of coffee and see if we can decide something in ten minutes of having a coffee,". Maybe I underestimated this difference in how we function.'

- As hinted in the quote above, the Revenue Protection team and the Customer Service team are both very busy. This meant that the manager and director of the Customer Service team, in particular, were not able to allocate as much of their team's time to the Taskforce as the Taskforce managers would have liked.

In addition, the pilot project managers realised that the process through which households reached the Taskforce was too complicated, had too many stages and required too much of the households. This was also the view of the evaluation team at an early stage. After some time, the email inviting households to contact the Energy Solidarity Taskforce was modified to be more directive. Due to organisational challenges, it took a long time for this change to be implemented (these challenges are discussed fully in the Alleviate process section). However, in the view of the evaluation team, the process remained too complicated; the suggestion was made that the process could be simplified to just one stage in which the Taskforce contacts the identified households to provide the service either immediately or at another mutually agreed time. Due to the organisational challenges, Enercoop was not able to make this change within the pilot timeline.

Finally, when the Revenue Protection team called the households in Stage 1 of the process described above, the number that showed on the households' phones was the same as for a standard call from this team, which would normally be pursuing payment. The Enercoop team have speculated, plausibly, that this would have led to many households not taking the call.

Outcomes

Unfortunately, Enercoop does not have access to reliable records on how many households there were at Stages 1-3 of the Identify mechanism process that is described above (the number of households that were successfully contacted by the Taskforce at Stage 4 is discussed in the Alleviate process section below). However, as discussed above, both the Solidarity Taskforce management team in Enercoop and the evaluators conjecture that there is likely to have been considerable attrition between Stages 1 to 4.

Householder responses to the 'baseline' survey suggest that the Enercoop approach was reasonably effective in targeting people who are struggling to pay their energy bills. Although it is important to remember that CEES uses a definition of energy poverty that goes beyond affordability, the 70 responses to the 'baseline' survey question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' is a useful indicator of energy struggles. Table 7.2 shows that around three out of five (60%) of the respondents were experiencing 'great difficulty' or 'some difficulty' paying their energy bills in the year prior to their contact with the Solidarity Taskforce. Meanwhile,

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around one in four (25%) had been experiencing 'no difficulty' or 'little difficulty' paying their energy bills. These are perhaps surprising findings given that the Enercoop Identify mechanism focused on customers who were in arrears on their energy bills. The evaluators recommend that Enercoop examine this issue further with the objective of focusing to a greater extent on people who are truly struggling with their energy bills (as opposed to just not paying them).

	Number (%)
1 - No difficulty	14 (20%)
2	3 (4%)
3	9 (13%)
4	22 (31%)
5 - Great difficulty	20 (29%)
No answer	1 (1%)
Prefer not to say/Don't know	1 (1%)

Table 7.2. Baseline responses to the question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' (n = 70).

The demographic characteristics of the 70 participating households that responded to the 'baseline' survey are shown in Table 7.3. It is interesting that the great majority were in work, highlighting that struggles with the cost of energy does not only occur in non-working households. It is also the case that relatively few households contained a 'vulnerable' person such as an older person or someone with a disability or long term illness, and more than half did not have children. However, it may be that more of such households declined to complete the survey, which was optional.

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	Number of households (%)
Number of people in household	
1	14 (20%)
2	16 (23%)
3	17 (24%)
4	14 (20%)
5 or above	9 (13%)
Number of children (aged 17 or less) in household	
0	37 (53%)
1	16 (23%)
2	16 (23%)
Number of older people (aged 65 and above) in household	
0	68 (97%)
1 or 2	2 (3%)
One or more person with a disability or long-term illness	
Yes	6 (9%)
No	64 (91%)
One or more person in paid employment	
Yes	68 (97%)
No	2 (3%)
One or more adult male in the household	
Yes	61 (87%)
No	9 (13%)
Type of property	
Purpose built flat or apartment	39 (46%)
House	31 (54%)
Tenure	
Owner occupier	26 (37%)
Social tenant	30 (43%)
Private tenant	13 (20%)

Table 7.3. Demographic characteristics of households that completed the 'baseline' survey in the Enercoop Solidarity Taskforce programme (n = 70).

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7.4. Alleviate: the Solidarity Taskforce processes (EO4.1)

Introduction

The Enercoop Alleviate mechanism had three key elements or stages:

1. Training the energy advisors.
2. Setting up systems and materials.
3. Implementing the Energy Solidarity Taskforce.

Training energy advisors

Process

Enercoop employed an external expert to deliver a one-day training in energy poverty alleviation in January 2023. There were 17 participants in the training, drawn from the Enercoop Customer Services and Revenue Protection teams. The training covered the following topics:

- Defining energy poverty.
- The causes and consequences of energy poverty.
- The roles of different actors in energy poverty interventions.
- The current financial support for people in energy poverty and in poverty more broadly.
- How to identify the problems and offer responses.

The Enercoop Solidarity Taskforce training day

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Outcomes

The 17 participants in the Enercoop training completed the 'trainee' survey at the end of the day. The results are shown in Table 7.4. As indicated in the table, the training session was highly valued by the participants. The positive statements all have high levels of agreement (88% to 100%) with no disagreement at all. The qualitative responses to the open-ended questions indicate that the case studies and role plays were particularly appreciated as was the section on the various institutional actors in energy poverty.

	Agree	Neither	Disagree
I learned practical information and skills to help me to support householders to reduce their energy consumption and costs.	15 (88%)	2 (12%)	0 (0%)
I feel MORE confident than before that I can support householders to reduce their energy consumption and costs.	15 (88%)	2 (12%)	0 (0%)
I intend to take action to reduce my own energy consumption and costs.	15 (88%)	2 (12%)	0 (0%)
The training event was well-run.	17 (100%)	0 (0%)	0 (0%)
The training event was tailored to my needs.	15 (88%)	2 (12%)	0 (0%)

Table 7.4. Participant perceptions of the Enercoop training day (n = 17).

Challenges

At the same time, several participants commented that there was a lot of new and complex information to take in on just one day. This suggests that it would be helpful to allow more time for the training and that another training course after six months or one year would be of value.

Setting up new systems and materials

As part of its preparation for implementing the Taskforce, Enercoop set up:

- A specific email address for the Taskforce.
- A shared spreadsheet to record the progress of households through the Taskforce process.
- An internal messaging channel to share information and updates with and among the Taskforce.
- Process guidance and energy poverty information for the Taskforce.
- An energy poverty 'frequently asked questions' (FAQ) page on the Enercoop website. This section of the Enercoop was promoted to all Enercoop customers.

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Implementation of the Taskforce

Process

The telephone consultations that were undertaken by the Solidarity Taskforce had two main elements:

- The provision of energy advice.
- Directing households to sources of financial support.

Challenges

When the Taskforce began working directly with households, in February 2023, it became clear that despite the apparent success of the training, some members of the project delivery team felt ill-equipped and/or uncomfortable working with people in energy poverty. The project managers realised that this was – at least, in part – because some members of the delivery team did not have the strong social instinct that is essential for work as an energy poverty energy advisor.

Outcomes

The numbers of households that were advised by the Taskforce service are shown in Table 7.5. This shows that, despite the challenges highlighted above, the Taskforce was able to support 261 households between February 2023 and May 2024. The experiences of and impacts on households are discussed below. Table 7.5 also shows that, over the same period, there were more than 2,397 visits to the Housing Solidarity Fund[27] page of the Enercoop energy solidarity FAQ webpages (noting again that this was promoted to all of Enercoop's customers).

The most significant outcome of this work was that, by September 2023, the Taskforce managers and the Enercoop board had together decided and agreed that Enercoop would:

- Continue the Solidarity Taskforce beyond the CEES project.
- Redesign the Taskforce processes, taking account of learning from the CEES project, for relaunch in September 2024.

[27] The Housing Solidarity Fund is a key French government grant scheme. This was the most popular page in the Enercoop energy solidarity FAQ webpages.

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Month	Number of households assisted by the Solidarity Taskforce	Number of visits to the Housing Solidarity Fund webpage
February 2023	17	12
March 2023	26	36
April 2023	26	54
May 2023	19	63
June 2023	16	70
July 2023	10	80
August 2023	11	117
September 2023	14	113
October 2023	15	245
November 2023	9	249
December 2023	9	200
January 2024	9	214
February 2024	7	236
March 2024	60	360
April 2024	5	195
May 2024	8	153
TOTAL	**261**	**2,397**

Table 7.5. Numbers of households that were supported by the Solidarity Taskforce.

In particular, the redesigned Taskforce has the following characteristics:

- It is a dedicated team of four within the Customer Services team, allowing the team greater independence and flexibility.
- It has its own budget.
- The Solidarity Taskforce will provide a new, third level of Customer Service, dedicated to energy solidarity and some other complex customer needs. Level 3 in Customer Service will focus on resolving the most sensitive, complex and time-consuming problems, providing advanced solutions and ensuring that no major problem affecting a customer is left unresolved.
- Further training will be developed and provided to the Level 3 Solidarity Taskforce delivery team, in particular focusing on the challenges of working with people in energy poverty.
- Households will be referred to the Taskforce by other Enercoop departments and the route to the Taskforce will be more straightforward than the one that was piloted in CEES.
- Given the challenging nature of this work, Enercoop is planning to introduce systems for psychological support.

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7.5. Alleviate: short term household experiences and impacts (EO4.2)

Short term household experiences of the Taskforce

A sub-group of 68 households in the Enercoop pilot project completed the 'engagement' survey at the end of their telephone consultation with the Taskforce (this is more than a quarter of the 261 participating households). This survey included three questions relating to householders' experiences of the Taskforce. The results from these questions are shown in Table 7.6. The results suggest high levels of satisfaction with the Taskforce experience. In terms of the quantitative data, 97% of respondents agreed that the telephone call was 'well run', suited their needs and was 'conducted in a respectful way'.

	Agree	Neither	Disagree
The telephone call today was well-run	66 (97%)	2 (3%)	0 (0%)
The telephone call suited my needs	66 (97%)	1 (2%)	1 (2%)
The telephone call today was conducted in a respectful way	66 (97%)	1 (2%)	1 (2%)

Table 7.6. Household experiences of the Energy Solidarity Taskforce telephone calls (n = 68).

The qualitative responses to the open-ended questions suggest that the information about government financial support was particularly valued. Several respondents commented positively on the tone of the telephone call, which was referred to as 'respectful', 'attentive' and 'pleasant'. Most respondents did not respond to the open-ended question, *Was there anything that didn't work for you?*, though one commented that they would have liked to have received the information sooner. In terms of further comments, it is interesting that a few respondents placed blame for their situation on the state or government, commenting:

'The fundamental problem remains the increases in the state, the taxes'.
'The problem is not my supplier, but the fattening state'.
'Let the government do more!'

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Short term impacts of the Taskforce

The event survey also contained three questions to help us understand the immediate impacts of the Taskforce telephone calls. The results are shown in Table 7.7 and are broadly positive. More than three quarters of the 68 respondents agreed that they 'had learned practical information' (76%), 'felt more confident' (84%) and 'intended to take further action' to reduce their energy consumption and costs (76%).

	Agree	Neither	Disagree
I have learned practical information and skills today to help me reduce my energy consumption and costs.	52 (76%)	12 (18%)	4 (6%)
I feel more confident than before that I can reduce my energy consumption and costs.	57 (84%)	8 (12%)	3 (4%)
I intend to take further action that I hope will reduce my energy consumption and costs.	52 (76%)	15 (22%)	1 (2%)

Table 7.7. Immediate impacts on households in the Energy Solidarity Taskforce programme (n = 68).

7.6. Alleviate: longer term household experiences and impacts (EO4.2)

Longer term experiences

In Section 5, it was noted that participants reported positive experiences at the end of the telephone consultations. The Enercoop 'follow-up' survey contained four retrospective questions about longer term experiences of the programme and was completed by 18 participating households, six to nine months after the telephone consultations. The findings from this survey are shown in Table 7.8 and are reasonably positive. Across the four questions, levels of agreement are above 50% and levels of disagreement are zero or one. These findings suggest that the Enercoop Energy Solidarity Taskforce was appreciated by many or most households.

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	Agree	Neither	Disagree
I think that the programme was well run.	10 (56%)	8 (44%)	0 (0%)
I felt listened to and respected by the people who were delivering the programme.	11 (61%)	6 (33%)	1 (6%)
I feel that the programme was adaptable to suit my needs.	9 (50%)	9 (50%)	0 (0%)
I would recommend the programme to other people who struggle to pay their energy bills.	10 (56%)	7 (39%)	1 (6%)

Table 7.8. Longer-term household experiences of the Enercoop Solidarity Taskforce programme (n = 18).

Longer term changes: comparing the 'baseline' and 'follow up' surveys

Introduction

Longer term impacts of the pilot projects were examined by comparing each household's responses to a 'baseline' survey to their responses to an identical 'follow-up' survey. In the Enercoop pilot, the 'baseline' survey was conducted in the initial telephone call to households and the 'follow-up' survey was conducted by telephone between six and nine months after the telephone consultation with each household. Matched pairs of survey responses ('baseline' and 'follow-up') were achieved by attributing a unique ID number to each household (in the case of the Enercoop pilot, the Enercoop customer number was used for this purpose). Once the Enercoop 'baseline' and 'follow-up' data had been cleaned and integrated, 18 matched pairs of households were available for analysis. This is just 7% of the 261 households that participated in the Energy Solidarity Taskforce programme to May 2024. Differences between the baseline survey data and the follow-up survey data were examined using the Related-samples Wilcoxon signed-rank test, with a confidence level of 90% required to establish significant changes. As discussed earlier, 90% was used due to the relatively small sample sizes. Notably, the 'follow-up' surveys were completed in July 2024. Since this is typically a period when domestic energy demand is at its lower end, this may have affected the results.

The results of this analysis are examined in the tables below. These tables show all of the items from the 'baseline' and 'follow-up' surveys that relate to energy poverty. Items where a statistically significant change was identified, with a 90% level of confidence, are highlighted in green. The tables also show the means for the variables in the 'baseline' and 'follow up' surveys, as well as the

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difference between the means. Finally, the tables offer a description of the statistically significant changes.

Paying energy bills

As indicated in Table 7.9, the Enercoop analysis shows a statistically significant *decrease* in the means between the 'baseline' survey and the 'follow-up' survey. This suggests that households reported *less difficulty* paying their energy bills six to nine months following their engagements with the Solidarity Taskforce programme than they did prior to these engagements. However, it is important to note the significant caveat relating to the collection of the follow-up data in the summer, when energy demand is likely to be lower.

Self-restriction of energy services

Table 7.9 also shows the results with respect to the self-restriction of access to energy services by householders. The analysis shows a statistically significant *decrease* in the means between the 'baseline' survey and follow-up' responses with respect to heating, refrigeration, laundry, lighting and running electronic devices. This suggests that householders exercised *less self-restriction* of access to these energy services following their participation in the Solidarity Taskforce programme. These decreases in self-restriction, particularly for heating and lighting, are likely to be influenced by the collection of the 'follow-up' data in July. Nonetheless, these findings may also indicate that the Energy Solidarity Taskforce has been helpful for participating households

Negative impacts of energy struggles

Table 7.10 shows the results with respect to the negative impacts that are associated with energy poverty. Although the analysis shows some decreases in the means, suggesting a *decrease* in these negative impacts, none of these findings were statistically significant at 90% confidence, or close to 90%. It is possible that some of these differences would have been statistically significant if the sample size had been substantially larger, but we cannot be sure.

Energy literacy and know how

Table 7.11 shows the findings with respect to the energy literacy and know-how of the householders. In this case, the analysis showed statistically significant differences in the means in two cases: confidence about receiving benefits and feeling a sense of stigma. In both cases, the indicated change is positive: participants are *more confident* that they are receiving the benefits to which they are entitled and their sense of stigma or shame has *decreased*. Although there are other positive changes indicated by the difference in means, these were not statistically significant at 90% or close to 90%. Again, the sample size is an issue in establishing significant change.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Difficulty affording energy bills. **1: No difficulty; 5 = Great difficulty (n = 18).**	3.89	2.56	-1.33	Less difficulty
Self-restriction of access to energy services in order to be able to afford energy bills. 1: Not restricted at all; 5: Restricted to a great extent.				
Heating (n = 18)	4.00	2.06	-1.94	Less self-restriction
Cooking (n = 18)	1.39	1.88	0.49	-
Refrigeration (switching off fridge or freezer) (n = 17)	1.22	1.71	0.49	Less self-restriction
Cooling your home (n = 6)	2.33	1.79	-0.54	-
Doing laundry (n = 17)	2.56	1.71	-0.85	Less self-restriction
Heating hot water (n = 17)	1.83	1.71	-0.12	-
Lighting (n = 17)	3.65	1.83	-1.82	Less self-restriction
Running electronic devices (for example, TVs, computers and phones) (n = 18)	2.44	1.78	-0.66	Less self-restriction

Table 7.9. Household responses to the 'baseline survey' and 'follow up' survey in the Enercoop Solidarity Taskforce programme (paying bills and self-restriction of access to energy services). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Negative impacts on household of challenges paying for energy: 1: No impact at all; 5: A lot of impact				
Physical health or well-being (n = 18)	1.89	2.17	0.28	-
Mental health (n = 18)	2.61	2.22	-0.39	-
Ability to study at home (n = 15)	2.28	2.00	-0.28	-
Ability to work at home (n = 16)	2.61	2.06	-0.55	-
Ability to have visitors in the home (n = 18)	2.56	1.87	-0.69	-
Feeling of pride in the home (n = 15)	2.61	2.07	-0.54	-
Feeling comfortable in the home (n = 18)	2.56	2.28	-0.28	-
Feeling safe and secure in the home (n = 18)	2.72	2.22	-0.50	-
Ability to enjoy recreational activities in the home (n = 12)	2.17	2.06	-0.11	-

Table 7.10. Household responses to the 'baseline survey' and 'follow up' survey in the Enercoop Solidarity taskforce programme (negative impacts of problems affording energy).

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Extent of agreement with statements: 1 = 'I don't agree at all' and 5 = 'I strongly agree'.				
I know my approximate monthly energy consumption or costs (n = 17)	3.50	3.53	0.03	-
I understand my energy bills (n = 17)	3.22	3.65	0.43	-
I know that I am on the best energy tariff for me (n = 17)	3.06	3.59	0.53	-
I know how to manage my energy bills online (n = 17)	3.44	3.65	0.21	-
I know how to save energy in my home (n = 17)	3.72	3.59	-0.13	-
I know if my home is well insulated or not (n = 16)	3.78	3.56	-0.22	-
I am confident that I am receiving all benefits/welfare payments that I am entitled to (n = 14)	2.14	3.53	1.39	Greater confidence
I think that my local community is supportive of people who struggle to pay their energy bills (n = 12)	3.00	3.47	0.47	-
I feel a sense of stigma or shame because of my struggles with energy bills (n = 11)	3.18	2.93	-0.25	Less stigma

Table 7.11. Household responses to the 'baseline survey' and 'follow up' survey in the Enercoop Solidarity Taskforce programme (energy literacy and know how). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Longer term impacts: the follow-up survey

The Enercoop 'follow-up' survey contained five questions that retrospectively asked households about changes during the period since their participation in the Solidarity Taskforce programme. The results are shown in Table 7.12. The data suggests that around half of the respondents agreed with the five positive statements and that very few disagreed. It is particularly encouraging that the findings suggest there were improvements for around half of the respondents in terms of both physical health and mental health.

	Agree	Neither	Disagree
I have learned more about how to use less energy through participation in the project.	9 (50%)	8 (44%)	1 (6%)
I have learned more about how to save on the cost of energy through participation in the project.	10 (56%)	8 (44%)	0 (0%)
I think my energy bills will be lower through participation in the project.	8 (44%)	8 (44%)	2 (11%)
Participating in the project has improved the physical health of my household.	8 (44%)	8 (44%)	2 (11%)
Participating in the project has improved the mental health of my household.	10 (56%)	6 (33%)	2 (11%)

Table 7.12. Longer-term household impacts of the Solidarity taskforce programme (n = 18).

7.7. Impacts for energy advisors (EO4.2)

As discussed earlier, the Solidarity Taskforce energy advisors were drawn from the Enercoop Customer services team and Revenue Protection team. The experiences of these energy advisors were examined through the 'energy advisor' survey. The responses of 11 (of around 18) energy advisors to the survey are shown in Table 7.13. The findings are fairly positive. In particular, 8 (73%) of the respondents agreed that the Solidarity Taskforce programme was well run and that the Taskforce management team was easy and flexible to work with. Further, more than half agreed that they had learned a lot (64%) and their confidence had grown (55%).

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	Agree	Neither	Disagree
I have learned a lot and developed new skills.	7 (64%)	3 (27%)	1 (9%)
My confidence has grown.	6 (55%)	4 (36%)	1 (9%)
My CV and employability are enhanced.	4 (36%)	3 (27%)	4 (36%)
The project was well-run	8 (73%)	2 (18%)	1 (9%)
Project management team was easy and flexible to work with.	8 (73%)	3 (27%)	0 (0%)
I feel more connected to my local community.	5 (46%)	3 (27%)	3 (27%)

Table 7.13. Experiences of the Enercoop energy advisors (n = 11).

The qualitative responses strongly showed that the energy advisors found it very rewarding to be able to support people in energy poverty; all of the respondents made this point, in a variety of ways. In terms of things that did not work so well, three respondents mentioned the limited effectiveness of the email that was sent to households, in encouraging them to email back for a consultation with the Taskforce. As previously mentioned, the evaluators had also felt that the process for householders to access the support was too complicated for the households.

7.8. Impacts on Enercoop: the legacy of the pilot (EO6)

1. Based on considerable learning during the CEES project, Enercoop will relaunch its Solidarity Taskforce in September 2024. The new Taskforce will be independent of other Enercoop departments and approvals structures, with its own budget, and will therefore be more agile. Staff working on it will have chosen to work on energy poverty, and training will be more comprehensive. Compared to the CEES pilot version, the process of accessing it will be simpler for households, and it will be able to offer advice and support on a much broader range of topics.

2. This new team will aim to resolve the most sensitive, complex and time-consuming problems, provide advanced solutions and ensure that no major problem affecting a customer is left unresolved. The aim is to provide personalised support, from start to finish, from a single customer relations employee.

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7.9. Key learning from the Enercoop pilot

1. Organisational structure is key. It is important that teams working on energy poverty are agile so that they can effectively respond to inevitable challenges. This means that it is important that they are able to operate independently of other departments and approvals processes.

2. It is important that the people who work on energy poverty alleviation with households are carefully selected, with an emphasis on their empathy and communication skills. Further, it is important that people work in these roles through their own choice.

3. It is important that training goes beyond 'technical' matters of energy poverty and energy efficiency, and also includes 'soft skills' and 'social skills', such as listening and patience.

4. It is important that the process for households to access the available support is designed to be straightforward and not onerous.

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8. Green Energy Cooperative (ZEZ)

Zelena Energetska Zadruga

8.1. Summary

The evaluation report addresses the following mechanisms.

New CEES mechanism

1. **FUND:** test and adapt micro-donations approach (inspired by Energie Solidaire)[28] and investigate other approaches to fund-raising, as appropriate.

Expansion/improvement of existing mechanisms

2. **IDENTIFY:** working with local partners (with inspiration from ALIenergy) to identify candidates for home visits.

3. **ALLEVIATE**: a first phase of home visits, with energy kit delivery, by the project manager and a trained volunteer; followed by training of further volunteers and a second phase of home visits plus energy kit delivery by the volunteers.

[28] The Energie Solidaire microdonations approach allows energy customers to make microdonations as part of their energy bills.

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Evaluation summary

Fund

The core objective of Green Energy Cooperative's (ZEZ's) CEES pilot project was to diversify its portfolio of funding sources for work on energy poverty beyond grant funding, with the specific objective of funding the purchase of 250 'energy kits' (around €70 each = around €17,500) to be used in a programme of home visits. The programme was publicly promoted with the title, 'Ease Their Troubles'. Inspired by Enercoop's Energie Solidaire microdonations approach, ZEZ began by exploring microdonations. Since ZEZ is not an energy supplier and does not have customers, it approached several local and national energy suppliers in Croatia; however, the energy suppliers were not able to explore a microdonations approach.

Nonetheless, this work inspired ZEZ to work with local fundraising specialist, Solidarna Foundation, to investigate and seek funding from public donations and corporate donations. Public donations were sought through a creative public campaign. Corporate donations were solicited through a targeted campaign, offering a choice of three levels of donation with corresponding reciprocal benefit packages from ZEZ. Between October 2022 and the end of 2023, ZEZ received a total of €16,371 in donations (compared to an ambitious target of €17,500), €11,055 from corporate donations and €5,316 from public donations. This can be considered a success as ZEZ's first foray into fundraising. In practical terms, ZEZ was able to purchase the 250 energy kits with these funds. ZEZ noted that these approaches to fund raising are time-consuming to investigate and implement. This success can be attributed to a strong partnership between the ZEZ 'Ease Their Troubles' team, the ZEZ communications team and Solidarna Foundation.

Identify

Inspired by ALIenergy, ZEZ also developed a local referral network of professional organisations that would refer potential households to ZEZ. The evaluation shows that the local partners had strong positive views about the ZEZ programme. While this network worked effectively, ZEZ encountered mistrust among households. This mistrust was overcome in two ways. First, through a combination of personal or 'word-of-mouth' referrals by a woman who had benefited from the home visit programme at an earlier stage and was very active in her local community and neighbourhood council. Second, by a local breakfast TV appearance by the ZEZ project manager. The TV appearance attracted so many households that ZEZ easily completed its recruitment of 250 households and needed to implement a waiting list. ZEZ employed a set of eligibility criteria (based largely around income) that was relatively straightforward to implement. However, there is evidence in the evaluation data that some participants did not feel they had problems affording their energy bill, despite being on low incomes. This, or another energy related criterion such as having a cold home, could be considered as an additional eligibility criterion in future work. We note also that evidence from elsewhere suggests that older people may not readily admit to having difficulties managing money, even when experiencing some hardship.

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Alleviate

The ZEZ 'Ease Their Troubles' home visit programme was implemented in two phases with the objective of reaching 250 households. The first phase, in spring 2023, was implemented by the ZEZ project manager and a single volunteer, who was completing the 'professional practice' element of her studies; 79 home visits were completed in this phase. In preparation for the second phase of home visits, ZEZ recruited and trained around 7 volunteer energy advisors to implement the home visits. Although the volunteers reported positive experiences of this work, there were challenges because the volunteers were unable to do as much work as they had hoped. Phase 2 took place in the late autumn of 2023 and 43 home visits were completed. Given the target of 250 households, this left 108 home visits outstanding. ZEZ reverted to the approach used in Phase 1, i.e. working with students who are completing their 'professional practice' and aimed to complete these home visits in the summer of 2024.

The home visits consisted of an assessment process, the provision of tailored energy advice and explanation and sometimes installation of the items in the 'energy efficiency kits' and completion of the 'baseline' survey for the evaluation. The ZEZ approach to home visits emphasised empathy and care; there is evidence in the comments of householders that this approach was highly valued. The evaluation shows that the householders had very positive experiences of the home visits. In addition, although it is not always possible to attribute impacts wholly to the ZEZ programme, the evaluation suggests that the 'Ease their Troubles' programme had several positive impacts on aspects of energy poverty, including increased knowledge of energy matters, increased ability pay energy bills and decreases in the negative impacts of energy poverty. The ZEZ approach has been featured in a European Commission video.

Legacy

The legacies of the ZEZ pilot project are: robust knowledge, experience and approaches for the successful and impactful implementation of processes for fundraising, recruiting suitable households and implementing energy poverty alleviation programmes. In addition, a key legacy of this work is that the ZEZ project manager has been invited to join a City of Zagreb working group on energy poverty that is tasked with producing an energy poverty strategy.

8.2. Introduction

About ZEZ

Based in urban Zagreb, in Croatia, Green Energy Cooperative (ZEZ) assists citizens in the development of, investment in and use of renewable energy sources. ZEZ had previous experience of operating a team of energy advisors to offer energy advice to people in hardship.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

The ZEZ pilot project

As noted above, the evaluation addresses three elements in the ZEZ pilot: a Fund mechanism, an Identify mechanism and an Alleviate mechanism.

Timescales

The timescales for the ZEZ pilot project are shown in Table 11.1.

	2022			2023				2024	
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
Fundraising									
Referral system and other Identify activities									
Volunteer training									
Home visit programmes									

Table 11.1. Timescales for the ZEZ pilot project.

Organisational structure

The ZEZ pilot project was initially managed and delivered by a team of two, a more senior manager and a more junior manager. In April 2023, the more senior manager went on maternity leave and the more junior manager took over the overall management of the project. This did not appear to affect the project delivery. Throughout the project the 'Ease Their Troubles' team was able to operate flexibly and relatively independently of other departments within ZEZ. Delivery of the project to householders took place in two phases. In the first phase, the project manager undertook the home visits with the support of one person who volunteered as a component of her studies and was trained as an energy advisor. For the second phase of home visits, the project manager recruited and trained a team of further volunteers to deliver the project.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

8.3. Fund (EO2)

Introduction

The objective of the ZEZ work on funding was to raise sufficient funds to purchase 250 energy kits that would be used as part of the ZEZ Alleviate mechanism (the energy kits and the Alleviation mechanism are described later). This required approximately €17,500 (approximately €70 per energy kit)[29].

Microdonations

Process

ZEZ began its work on fundraising by exploring options for setting up a microdonations scheme along the lines of the Energie Solidaire model[30]. Since ZEZ is not an energy supplier and does not have customers, it approached five of the national energy suppliers in Croatia (including the largest one, known as HEP) and secured meetings with them.

Challenge

The process of setting up meetings with the appropriate people in the energy companies was time-consuming and ultimately fruitless. This was because the suppliers were unable to collaborate with ZEZ in this way. The challenges for the suppliers are summed up by ZEZ (in the context of HEP, in particular) as follows:

> *'Unfortunately, they were not interested in implementing this model because their systems are too traditional, too rigid and too big for them to change for a limited period of time. Maybe they will think about this option in the long run. Also, I think that this microdonations financial model is great for renewable energy communities that are coming up soon in Croatia, we hope.'*

Response

In response to this setback, ZEZ decided to implement programmes for fundraising in the form of public donations and corporate donations, with targets of around €8750 for each. To implement its public and corporate donations campaigns, ZEZ worked in partnership with the Solidarna Foundation, which 'creates new opportunities for all citizens to act in solidarity, in our joint effort to protect human rights

[29] Croatia adopted the Euro on 1 January 2023. All amounts are shown in Euros.
[30] This model allows energy customers to make microdonations as part of their energy bill.

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and meet basic human needs, reduce inequalities and expand freedoms in all social spheres.'[31] As such, Solidarna Foundation is an expert in fundraising in these contexts and was a trusted partner for ZEZ. Solidarna Foundation's role was also significant because it was able to accept public donations (which ZEZ was not). Solidarna Foundation's fee for this service was 5% of the donations collected.

Public donations

Process

ZEZ worked on its public donations campaign intensively from October to December 2022. To implement the public donations campaign, the Ease Their Troubles name and branding for their pilot. The project delivery team also worked closely with the ZEZ communications team to develop and implement the campaign. To begin, ZEZ set up webpages for the campaign featuring: bank details and a QR code for donations; a video about energy poverty, the public donations campaign and the delivery of the project to householders (hosted on the project website and on YouTube); and text about the same issues. The website was updated as the campaign progressed. This material was also featured on the Solidarna Foundation website. The campaign and the campaign website were then promoted through a range of 'no-cost' channels, such as: ZEZ, Solidarna Foundation and other websites, apps, newsletters and social media feeds; speaking opportunities in public settings; advertisements on the city lights at tram stations (these were provided free of charge); and at a ZEZ-organised a flea market / clothes exchange event named "Solidarity Shopping" in a coffee shop in the city centre (the funds that were collected at this event through renting out the display tables to sellers were added to the donations to fund the 'energy efficiency kits').

The 'Ease their Troubles' promotional video. Link to video.

[31] Solidarna Foundation had become well-known in Croatia following its work collecting donations in response to the earthquake in Croatia in 2020.

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City lights at the tram station

Donations at the 'Solidarity Shopping' event.

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Using the QR code to make a donation at the 'Solidarity Shopping' event.

Challenges

ZEZ did not report any specific challenges with this work, beyond it being time-consuming to implement.

Outcomes

The outcomes from this work are discussed below, jointly with the outcomes from the corporate donations work.

Corporate donations

Process

The ZEZ Ease Their Troubles team also worked with Solidarna Foundation and the ZEZ communication team on the corporate donations aspect of its fundraising activities, which took place in the autumn of 2022.

The corporate donations phase of the campaign had the following characteristics:

- Whereas the public campaign was a universal campaign, the corporate donations campaign was targeted and selective. In particular, ZEZ focused on companies with whom it already had a relationship and/or who had strong records of Corporate Social Responsibility (CSR) and contacted them individually. ZEZ took care to approach named individuals via their unique email address, rather than writing to general email addresses, such as 'info@.....'.

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- The corporate campaign made use of the same materials as the public campaign, such as the video. In addition, the campaign communicated what had been done so far; this included the amount of money gathered through the public campaign, the number of households visited and photos from the visits.
- Organisations were invited to make donations in the form of either cash or volunteering time of their employees (who would be trained and receive a certificate).
- Developed with advice from Energie Solidaire, the corporate campaign featured reciprocal packages of publicity and services provided by ZEZ, corresponding to two donation levels:
- Level 1: Smaller donation of €2,000 to €3,000 and/or volunteering
  Reciprocal package: Mention of the donating company on social networks, in the ZEZ newsletter and in the sponsor category on the Ease their Troubles website
- Level 2: Larger donation of €3,000 to €4,000 and/or volunteering
  Reciprocal package: All of the above, plus workshops for the company's employees on energy efficiency and solar energy for households.

In addition, the ZEZ project manager contacted a car rental company with a proposal whereby ZEZ would rent a car to use for the home visits and the rental company would donate the fuel that would be used. However, the rental company did not take up this proposal.

Challenges

ZEZ reported that securing corporate donations was more challenging than securing public donations. As indicated in this quote, ZEZ conjectured that one reason for this could be that it is more challenging to inspire solidarity and empathy among senior directors (who are more likely to be well off) than among the public (who will have a much broader range of incomes):

> *'We tried to induce the same empathy feeling and the same solidarity spirit. But I think a lot more effort went into contacting firms and getting their response and getting their donations. I think you can't have the same expectations from citizens and from directors of firms in this way. I think that the citizens generally are not wealthy, so the bigger part of them can relate to energy poverty, to high bills.'*

While this may be the case, it is also worth noting that the corporate donations work would have reached relatively few companies compared to the universal public campaign, and so it is hard to compare success rates. In addition, securing corporate donations was challenging in other pilot projects.

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Outcomes (public and corporate donations)

ZEZ's objective was to collect a total of €17,500 in donations (€8,750 in public donations and €8,750 in corporate donations). As shown in Table 11.2, ZEZ received a total of €16,371 in donations between October 2022 and the end of 2023, with the majority of this coming in October and November 2022. A total of around €5,316 was received in public donations from around 180 individuals and around €11,055 was received in corporate donations from around 22 organisations[32].

Month	Public donations		Corporate donations	
	Number of donations	Value of donation	Number of donations	Value of donation
Late October 2022	41	€893	5	€729
November 2022	132	€4,185	12	€2,720
December 2022	1	€36	1	€1,326
January 2023	1	€15	1	€15
February 2023	-	-	-	-
March 2023	-	-	-	-
April 2023	-	-	-	-
May 2023	1	€50	-	-
June 2023	-	-	-	-
July 2023	-	-	1	€3,000
August 2023	-	-	-	-
September 2023	1	€4	1	€265
October 2023	-	-	1	€3,000
November 2023	1	€25	-	-
December 2023	2	€108	-	-
TOTAL	180	€5,316	22	€11,055
GRAND TOTAL	€16,371			

Table 11.2. The outcomes of the ZEZ public and corporate donations campaigns.

[32] Some of the donations were received by Solidarna via a third party platform whose name appeared on Solidarna's records instead of the name of the donor. This means that it was not possible to know for sure in some cases whether the donation was from an individual or a company. Therefore, the figures here are, to some extent, estimates in terms of the split between public and corporate donations.

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In the phase of fundraising that is reported here, ZEZ received €16,371 on donations, compared to an overall target of €17,500. Although ZEZ did not quite reach its target for donations, this can be considered to be a success as a first foray into this area. The reasons for this success can be attributed to the three partners in the campaign – the ZEZ Ease Their Troubles team, the ZEZ communications team and the Solidarna Foundation – worked to a high standard and working very well in partnership with each other.

In practical terms, ZEZ reported that the energy kits proved to be less expensive than had been predicted. This meant that ZEZ was able to purchase 250 energy kits, for use in the home visit programme, as planned.

8.4. Identify (EO3)

Process

The ZEZ Identify process started by analysing Eurostat data in order to identify the Croatian demographic group that is most socially and economically vulnerable. This analysis led ZEZ to focus on people aged over 65 years:

Having made this decision, ZEZ began to recruit households into the two phases of its pilot project, in a number of ways. Inspired by ALIenergy, ZEZ set up a small network of third sector organisations that work with people over 65 years to contact and refer households to ZEZ; this included Red Cross Initiative (which runs a social shop for people in need), the Zagreb Register for Pensioners, the local authorities in Zagreb and the Centre for Social Welfare. A woman that ZEZ met through one of the neighbourhood councils in Zagreb, who is very active organising events for older people in her neighbourhood, signed up for the pilot project and then undertook successful recruitment activities among her extensive social network. ZEZ also placed leaflets and posters in suitable locations, such as public libraries, public health centres, public kitchens, pharmacies, Centres for Social Welfare and other spaces for public notices. During the winter of 2022, ZEZ rented a stand on a local market and demonstrated articles in the energy kit to encourage registrations. Also, at the end of each home visit, the delivery team took time to ask the householders to recommend the project to her or his friends. Also, in August 2023, during recruitment to the second phase of home visits, ZEZ secured a slot on the most popular Zagreb breakfast TV show.

When householders contacted ZEZ, they were taken through a relatively simple eligibility test. Householders were required to be aged 65 or more and be residents of the City of Zagreb or Zagreb County. In addition, to be eligible, households needed to fulfil one or more of the following criteria:

- Being a beneficiary of the National Benefit for the Elderly (available to those who have not made sufficient pension contributions during their working life).
- Being a recipient of the allowance for vulnerable energy buyers granted to single persons or households who meet the criteria for being considered vulnerable energy buyers).

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- Being a recipient of the minimum guaranteed compensation (a top-up payment for those on very low incomes).
- Being a beneficiary of a monthly pension of less than €400.

Filming Good Morning Croatia TV show

Challenges

ZEZ encountered two key challenges during these processes. First, ZEZ reported that they received fewer referrals from Red Cross Institute and Centre for Social Welfare than had been envisaged. ZEZ understood that this was because levels of trust among householders were low for two reasons. First, previous negative experiences, and a mistrust of institutions. Second, elderly people are afraid to allow people in their homes:

> *'Not a lot of them are open to receiving help. People are not that trusting, especially those that are very vulnerable and that are used to being promised some kind of help, and then not getting it from other institutions, from the state especially and from the city. Also, especially the elderly, they are afraid. They often live alone in too big apartments (which is why they are energy inefficient most of the time). I wouldn't recommend my mum to just let two people into her home without any kind of legitimacy. We hope that we will be able to maybe up the trust when we start visiting the households, through word of mouth from end users to their friends, to their peers.*

On this topic, it is notable that this was a less significant challenge in the case of the woman who contacted her social networks. It would appear that, among the 65+ age group, this more personal or word-of-mouth style of communication is more trusted than communication from organisations, even organisations who they are familiar with and who provide valuable services to them.

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The second challenge was the opposite to the first. Following the appearance on the Zagreb breakfast TV show, ZEZ was overwhelmed by applications to participate in the 'Ease Their Trouble's project (second phase). This was a positive thing because it overcame the earlier trust-related recruitment problems, possibly because the person running the project could be seen and was able to directly introduce the project in a very personable way. However, this was also a challenge because the ZEZ telephone lines were overwhelmed by callers and because ZEZ had to turn people away as the scheme became rapidly oversubscribed. After completing the necessary recruitment, ZEZ implemented a waiting list for future programmes.

Outcomes

Unfortunately, ZEZ did not monitor the number of referrals that did not meet the eligibility criteria. Table 11.3 shows the responses, of the 106 households that met the eligibility criteria, received a home visit and completed the 'baseline' survey, to the question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' The responses to this question indicate that, although 78% of respondents indicated that they have some or great difficulty affording energy bills, 23% appear to have little or no difficulty. Although it is important to remember that affordability is just one element of energy poverty, it is possible that some or all of this 23% should have been ineligible for the programme. At the same time, the participants did need to be on very low incomes in order to be eligible. Findings in other contexts show that older people can be reluctant to admit difficulties with money, or may have low expectations of living standards, so these could be other reasons for them not indicating problems with paying bills. In addition, ZEZ noted that some of the participants were supported by their adult children. ZEZ could consider including a question about energy bill affordability in future eligibility assessments but would need consider these issues carefully.

	Number (%)
1 - No difficulty	18 (17%)
2	6 (6%)
3	19 (18%)
4	24 (23%)
5 - Great difficulty	39 (37%)

Table 11.3. Baseline responses to the question, 'Thinking about the past year, how much difficulty have you had with affording your energy bills?' (n = 106).

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The demographic characteristics of the 106 households that responded to the 'baseline' survey are shown in Table 11.4.

	Number of households (%)
Number of people in household	
1	52 (49%)
2	29 (27%)
3	14 (13%)
4	4 (4%)
5 or more	7 (7%)
Number of children (aged 17 or less) in household	
0	100 (94%)
1 to 3	6 (6%)
Number of older people (aged 65 and above) in household	
0	1 (1%)
1	77 (74%)
2	28 (26%)
One or more person with a disability or long-term illness	
Yes	87 (82%)
No	19 (18%)
One or more person in paid employment	
Yes	25 (24%)
No	81 (76%)
One or more adult male in the household	
Yes	60 (57%)
No	46 (43%)
Type of property	
House	40 (38%)
Purpose built flat or apartment	60 (57%)
A flat or apartment that was converted	6 (6%)
Tenure	
Owner occupier	85 (80%)
Social tenant	9 (8%)
Private tenant	6 (6%)
Part owner/part tenant	6 (6%)

Table 11.4. Demographic characteristics of households that completed the 'baseline' survey in Phases 1 and 2 of the ZEZ home visit programme (n = 106).

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8.5. Alleviate: processes in Phase 1 (EO4.1)

Energy kits

Process

ZEZ used the funds that were raised in both phases of fundraising to purchase the 250 energy kits that would be used in the corresponding two phases of home visits. As mentioned earlier, each ZEZ energy saving kit cost up to €70 (prices of items fluctuated during the project). Each energy kit included:

- 6 x LED bulbs
- 1 x door brush
- 2 x window seals (12 m)
- 1 x 6 metre reflective film for radiators (these can be cut to size and used for multiple radiators around the home)
- 1 extension power cord with switch
- 2 x water and energy saving tap aerators.
- A booklet with written advice for room-by-room energy savings and useful contacts (Red Cross, Centers for Social Welfare, DOOR's Centre for energy poverty, The Croatian Pension Insurance Institute, Caritas, and ZEZ).

A ZEZ energy efficiency kit.

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Challenges

ZEZ reported similar challenges with energy kits that were highlighted in other pilots: it is time-consuming to purchase the materials, storage space is required and a car (and fuel) is necessary to transport the energy kits to the home visits.

Home visits: phase 1

Process

In the first phase of home visits, ZEZ aimed to visit 120 registered and eligible households (out of a target total of 250). The ZEZ project manager originally hoped that a team of volunteers would undertake this work; however, it was not possible to recruit and train a team in time for Phase 1. Thus, the Phase 1 home visits were undertaken by the ZEZ pilot project manager herself and a single volunteer. Importantly, this was a master's degree student in energy and energy efficiency who undertook the work with ZEZ as the unpaid 'professional practice' part of her studies. Phase 1 of the home visits began in January 2023.

Each visit was arranged by telephone a week in advance. Participants were informed that the visit would take around 45 minutes. The day before the visit, ZEZ checked once again that it was okay to come. In some cases, the visit needed to be rescheduled. Energy kits were prepared at the ZEZ office for the day and travel to the visits was by car. For security reasons, home visits were always undertaken in pairs; this also helped with the efficiency or speed of each visit. To reassure the householders, the team had distinctive identification lanyards showing their name

A householder in Phase 1 of the home visits.

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The visits usually followed this structure:

1. Introductions.
2. Introduction to the contents of the energy kit and suggestions for the small measures that could be installed.
3. After approval from the householder, one of the team started to install the small measures from the energy kits, while other commenced with the 'baseline' survey.
4. After completing everything, the team introduced the booklet, reassured the householder that they could contact ZEZ if they had any questions and ask them to recommend the programme to friends and neighbours.

Challenges

ZEZ reported that although it was time-consuming, the process of carrying out the Phase 1 home visits was undertaken relatively smoothly. Nevertheless, the ZEZ project manager commented:

> *'Not all the situations are nice. Most of them are, but some are quite hard emotionally to handle.'*

Outcomes

Phase 1 of the home visits took place between January 2023 and April 2023. 79 home visits were conducted in this phase. A breakdown of home visits per month is shown in Table 10.5.

Month	Number of home visits
January 2023	24
February 2023	21
March 2023	21
April 2023	13
Total	**79**

Table 10.5. Numbers of home visits per month in Phase 1.

The ZEZ project manager highlighted a number of benefits and positive outcomes from the Phase 1 home visit process:

- The value of having conducted home visits herself before training more volunteers to do the same. With respect to the emotional challenges of visiting some of the more desperate households, the ZEZ project manager reported:

'I will give the trainees some firsthand knowledge, to know exactly what they can expect and not to be too frazzled, and I think they need to be prepared for that.'

- The strength and mutual benefits – to the volunteer, the project manager and the project – of the working relationship between herself and the student volunteer.

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- The very rewarding nature of the work for both her and the volunteer.

The ZEZ project manager summed up these points, as follows:

> *'The work will be very good information for her to incorporate in her master's thesis. So yes, it was a very good match. She also loved talking to the householders and helping them. It was very, very heartwarming for me and for her. So, as much as I am not as pleased that the energy advisors didn't do this part of the job alone, as we envisioned, and I am glad that I got the chance to do the fieldwork also, because it really made me understand the problem a lot more.'*

8.6. Alleviate: processes in Phase 2 (EO4.1)

Introduction

Phase 2 of the ZEZ home visits had two main elements, which are discussed below:

1. Recruitment of volunteer energy advisors.
2. Training and induction of the volunteers.
3. Implementation of the home visits (with delivery of 'energy kits') by the volunteers.

Recruitment of the volunteers

Process

Recruitment of the volunteer energy advisors took place during the spring and summer of 2023, with ongoing recruitment beyond that. Recruitment took place via the following communication channels: ZEZ website, newsletter and social media channels; Friends of the Earth Croatia; a Croatian volunteering platform called Volunteka; and academic contacts in the Sociology and Social Work departments in the University of Zagreb (where the ZEZ project manager studied) and the Geotechnical Faculty in City of Varaždin.

Potential volunteers were invited to apply to join the team via a form on the ZEZ website. The information about the role emphasised: the nature of the work; the training that would be provided; the certificates that would be provided at the end of the training and at the end of the home visit programme; and the provision of expenses for travel and subsistence.

Challenges and outcomes

ZEZ reported that, throughout the volunteer phase of the 'Ease their Troubles' project, applications to be volunteers were more limited than had been hoped. In addition, many of the applicants who were accepted as volunteers had to drop out during the home visit phase due to changes in their availability, or because they did not have access to a car.

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Training and induction of the volunteers

Process

The ZEZ energy advisor training was designed and delivered by the ZEZ project manager and lasted around four hours. Eight volunteers underwent training and other induction activities in autumn 2023. The training covered the following topics:

1. Energy poverty (in general, in the EU and in Croatia).
2. Energy efficiency
3. The CEES project (aims, objectives, structure, process).
4. Step-by-step through the home visit process.

Another key part of the induction process was to provide each volunteer with a contract that described what was expected of them as volunteers and what ZEZ would do to support them (for instance, in terms of looking after their health and safety, and well-being, and the provision of expenses/allowances for travel and subsistence). In addition, volunteers were provided with all the necessary tools for installing the small measures in the household - pliers, sandpaper, scissors and scalpel, as well as the materials for recording information about the visited households.

Outcomes

Seven (out of eight) trainee energy advisors completed the 'training' survey at the end of the training. Table 10.6 shows that high levels of satisfaction with the training was universal in terms of learning and developing confidence, as well as with the way in which the training was run and the suitability of the training.

	Agree	Neither	Disagree
At the training event I learned practical information and skills to help me to support householders to reduce their energy consumption and costs.	7 (100)%	0 (0%)	0 (0%)
Following the training event, I feel MORE confident than before that I can support householders to reduce their energy consumption and costs.	7 (100)%	0 (0%)	0 (0%)
Following the training event, I intend to take action to reduce my own energy consumption and costs.	6 (86%)	1 (14%)	0 (0%)
The training event was well-run.	7 (100)%	0 (0%)	0 (0%)
The training event was tailored to my needs.	7 (100)%	0 (0%)	0 (0%)

Table 10.6. Participant perceptions of the ZEZ training days (n = 7).

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The responses to the open-ended, qualitative questions in the 'trainee' survey provide further detail about the high levels of satisfaction. In addition to positive mentions of the content and structure of the training, the trainees also commented on the relaxed atmosphere in the training, and the 'kindness', 'energy', 'eloquence and 'expertise' of the ZEZ project manager who delivered the training. The ZEZ training was clearly developed to a high standard.

Home visits: phase 2

Process

The Phase 2 home visits were conducted by the volunteer energy advisors. The process for the Phase 2 home visits was largely the same as the Phase 1 home visits.

Challenges

Delivering the home visits through the volunteer energy advisors was very challenging. This is an important finding. A number of challenges were experienced:
Delivering the home visits through the volunteer energy advisors was very challenging:

- Very often, volunteers were not able or willing to commit as much time as they had stated at the outset. ZEZ reported that, despite the contracts that had been prepared and signed at the outset, since they were volunteers, it was not in practice possible to apply any pressure on them to do more work.
- The circumstances of some volunteers changed during the work, for example, they got a new job, so that they were not able to continue.

Outcomes

The Phase 2 home visits were conducted between October 2023 and December 2023. 43 home visits were conducted in this period. A breakdown of home visits per month is shown in Table 10.7. Taking into account the 79 home visits that were undertaken in Phase 1, a total of 142 home visits were conducted in Phases 1 and 2. As discussed above, the approach that was used in Phase 2 did not yield as many home visits as had been hoped; this left 108 further home visits to achieve the target of 250.

Month	Number of home visits
October 2023	14
November 2023	22
December 2023	7
Total	**43**

Table 10.7. Numbers of home visits per month in Phase 2.

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In response to this challenge, ZEZ returned to the approach that was used in Phase 1 by recruiting and training a new team of student volunteers, who will undertake the work as the 'professional practice' element of their studies. The plan was that the ZEZ project manager and the volunteers will complete the remaining 108 home visits during the summer of 2024.

8.7. Alleviate: short term householder impacts and experiences in Phase 1 (EO4.2)

Short term householder experiences

Short term household experiences of the 'Ease their Troubles' programme were evaluated through three questions in the CEES 'engagement' survey. This survey was completed by 106 participating households at the end of the home visit. Of these 106 responses, 70 were collected in Phase 1 (89% of the 79 households in Phase 1) and 36 were collected in Phase 2 (84% of the 43 households in Phase 2). A Mann-Whitney test confirmed that the responses in Phase 1 and Phase 2 are not significantly different in statistical terms. This means that the data from Phases 1 and 2 can be examined together.

Table 10.8 shows that household experiences of the ZEZ home visits were very positive. The level of agreement with all three of the statements is almost 100%, with no disagreement at all.

	Agree	Neither	Disagree
The home visit today was well-run	104 (98%)	2 (2%)	0 (0%)
The home visit suited my needs	105 (99%)	1 (1%)	0 (0%)
The home visit today was conducted in a respectful way	105 (99%)	1 (1%)	0 (0%)

Table 10.8. Household experiences of the ZEZ home visits (n = 106).

Turning to the responses to the open-ended, qualitative questions in the 'engagement' survey, four features stand out:

- The very positive experiences of householders are further reflected in these comments.
- Many respondents referred positively to one or more items in the 'energy kit'.
- Respondents used terms such as: 'company', 'kindness', 'care', 'benevolence', 'gift', 'decency' and 'taking care' to describe the visit and the energy advisors.

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- One respondent lamented that the energy advisor ‘didn’t even want juice’. This is an interesting comment with possible implications about the value of accepting hospitality and the social connections that this helps to create.

Fitting draught excluder at a home visit.

Short term householder impacts

The short-term impacts of the home visits were examined in three further questions in the ‘engagement’ survey. Although the results shown in Table 10.9 are not quite as strong as those above, levels of agreement around 90% still make it clear that the ZEZ home visits had very positive short-term impacts for the recipients.

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	Agree	Neither	Disagree
I have learned practical information and skills today to help me reduce my energy consumption and costs.	96 (91%)	7 (7%)	3 (3%)
I feel more confident than before that I can reduce my energy consumption and costs.	96 (91%)	8 (8%)	2 (2%)
I intend to take further action that I hope will reduce my energy consumption and costs.	94 (88%)	9 (9%)	3 (3%)

Table 10.9. Immediate impacts on households of the ZEZ home visits (n = 106).

8.8. Alleviate: longer term household experiences and impacts (EO4b)

Longer term experiences

The ZEZ 'follow-up' survey contained four questions about household experiences of the ZEZ programme. The 'follow up' survey was completed by 53 participating households, three to six months after the home visits that were discussed above. Of the 53 responses, 51 were from households in Phase 1 and just 2 from Phase 2. The implication of this is that these results apply to Phase 1 only.

The findings from this survey are shown in Table 10.10. The findings in this table show that longer term householder experiences of the ZEZ home visits were very positive. Almost all of the respondents agreed that the programme was well-run (98%) and suited their needs (91%) and was delivered in a respectful way (98%). Further, almost all of the respondents agreed that they would recommend the programme to other people who struggle with energy bills (98%).

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	Agree	Neither	Disagree
I think that the programme was well run.	52 (98%)	0 (0%)	1 (2%)
I felt listened to and respected by the people who were delivering the programme.	52 (98%)	1 (2%)	0 (0%)
I feel that the programme was adaptable to suit my needs.	48 (91%)	4 (8%)	1 (2%)
I would recommend the programme to other people who struggle to pay their energy bills.	52 (98%)	0 (0%)	1 (2%)

Table 10.10. Longer-term household experiences of the ZEZ Phase 1 home visits (n = 53).

Longer term impacts: comparing the 'baseline' and 'follow up' surveys

Introduction

As described in more detail in Chapter 2, longer term impacts of the pilot projects were examined by comparing each household's responses to a 'baseline' survey to their responses to an identical 'follow-up' survey. In Phase 1 of ZEZ's pilot, the 'baseline' survey was conducted face-to-face during the home visits and the 'follow-up' survey was conducted by telephone between three and six months after the home visits. Matched pairs of survey responses ('baseline' and 'follow-up') were achieved by attributing a unique ID number to each household. Once the ZEZ 'baseline' and 'follow-up' data had been cleaned and integrated, 49 matched pairs of households were available for analysis. As above, only two of these matched pairs were from households in Phase 2, implying that this analysis relates to Phase 1 only. Differences between the 'baseline' survey data and the follow-up survey data were examined using the Related-samples Wilcoxon signed-rank test, with a confidence of 90% required for reporting as statistically significant. As discussed earlier, 90% was used due to the relatively small sample sizes.

The results from this analysis are shown below. These tables show all of the survey items from the ZEZ pilot 'baseline' and 'follow-up' surveys (with the number of households included in the analysis shown alongside the item). The survey items where a statistically significant change between the 'baseline' survey responses and the 'follow-up' survey responses was found are highlighted in green. For each survey item, the means from the 'baseline' survey and the 'follow-up' survey are indicated, as well as the difference between the means. In the case of the green shaded items, where a statistically significant change was identified, the change is described.

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When considering the results in these tables, it is important to note that it is not possible to attribute any changes to the pilot project with certainty. This is because it was not possible to control for other factors such as seasonality and the cost of energy, both of which might also shape the findings.

Paying energy bills

As indicated in Table 10.11, the ZEZ analysis showed a statistically significant difference between the responses to the 'baseline' survey and the 'follow-up' survey. In this instance, the mean has decreased. This is a positive result that indicates that households reported *less difficulty* paying their energy bills three to six months following their home visit than they did at the time of their home visit. Whilst we should consider the possible role of other factors, this finding suggests that the ZEZ home visits had a positive impact on participants' ability to pay their energy bills.

Self-restriction of energy services

Table 10.11 also shows the results with respect to the self-restriction of access to energy services by householders. The analysis shows a statistically significant difference in the 'baseline' survey and follow-up' responses with respect to three survey items: heating, refrigeration and lighting. That said, the results are somewhat contradictory. With respect to heating and lighting, the results suggest that the respondents have implemented *less* self-restriction in the three to six months after the home visit than they did at the time of the home visit. This might be a positive reflection of the greater ease with which householders were able to pay their energy bills in the period after the home visit. In contrast, the results with respect to refrigeration suggest that householders have implemented *more* self-restriction. It is possible that this finding is the result of the discussion of refrigeration during the home visit, which could have prompted householders to pay more attention to this issue through self-restriction (for example, this might involve switching off a second fridge or freezer, although we have no evidence for this).

Negative impacts of energy poverty

Table 10.12 shows the findings with respect to the negative impacts of challenges with paying for energy. The analysis shows a statistically significant difference in the 'baseline' survey and 'follow-up' survey responses with respect to the ability to have visitors in the home, the ability to access online communications (such as websites, messaging and telephone calls) and recreation in the home (such as TV and hobbies). More specifically, the results suggest that householders experienced greater negative impacts in these regards in the period following the home visit than at the time of the home visit. We can't be sure of the reasons for this: it may be because the home visits encouraged them to think about the issues more, or effects may have accumulated over time, or other reasons.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
How much difficulty have you had with affording your energy bills? 1: No difficulty; 5 = Great difficulty (n = 48)	3.71	2.85	-0.86	Less difficulty
In each case, I would like you to tell me the extent to which you have restricted your use of these things, *in ways that you did not want to, in order to be able to afford your energy bill.* 1: Not restricted at all; 5: Restricted to a great extent				
Heating (n = 39)	3.89	3.29	-0.60	Less restriction
Cooking (n = 41)	2.58	2.57	-0.01	
Refrigeration (for example, maybe you have switched off your fridge or freezer) (n = 37)	1.92	2.50	0.58	More restriction
Cooling your home (n = 26)	3.43	3.43	0.00	
Doing laundry (n = 42)	3.55	3.31	-0.24	
Heating hot water (n = 39)	2.92	2.94	0.02	
Lighting (n = 48)	3.67	2.83	-0.84	Less restriction
Running electronic devices (for example, TVs, computers and phones) (n = 46)	2.43	2.68	0.25	

Table 10.11. Longer-term impacts on households of Phase 1 of the ZEZ home visit programme (paying bills and self-restriction). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
To what extent have challenges paying for energy had a negative impact on these things in your household? 1: No impact at all; 5: A lot of impact				
Physical health or well-being (n = 48)	2.90	3.44	0.54	Greater impact
Mental health (n = 47)	3.06	3.42	0.36	
Ability to study at home	Insufficient responses			
Ability to work at home	Insufficient responses			
Ability to have visitors in your home (n = 45)	1.96	2.48	0.52	Greater impact
Feeling of pride in your home (n = 46)	2.02	2.27	0.25	
Feeling comfortable in your home (n = 48)	2.17	2.46	0.29	
Feeling safe and secure in your home (n = 47)	2.19	2.35	0.16	
Ability to access online/digital communication services … (n = 33)	1.74	2.55	0.81	Greater impact
Ability to enjoy recreational activities … in your home (n = 47)	1.55	2.35	0.80	Greater impact

Table 10.12. Longer-term impacts on households of Phase 1 of the ZEZ home visit programme (negative impacts). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Energy literacy and know how

Table 10.13 shows the findings with respect to the energy literacy and know-how of the householders. The analysis shows a statistically significant difference with respect to understanding of energy bills, knowledge of how to save energy, and knowledge of how to manage energy bills online. More specifically, the analysis indicates that understanding and knowledge of these three important issues was greater in the period after the home visit than it was at the time of the home visit. The results show that the increase in knowledge of how to manage energy bills online was particularly great. Given that it is unlikely that householders would have gained this understanding and knowledge elsewhere, it appears highly likely these three changes are the direct impact of the ZEZ home visit programme. Table 10.13 also indicates that respondents felt that their community is more understanding three to six months after the home visit than at the time of the home visit.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
To what extent do you agree or disagree with the following statements? In each case, please could you give an answer between one and five, where one means 'I don't agree at all' and five means 'I strongly agree'. If the answer is No answer/Don't know/Not applicable, please do not enter a response.				
I know my approximate monthly energy consumption or costs (n = 46)	3.98	4.06	0.08	
I understand my energy bills (n = 47)	3.70	4.27	0.57	Greater understanding
I know that I am on the best energy tariff for me (n = 45)	4.13	4.06	-0.07	
I know how to manage my energy bills online (n = 31)	1.70	3.34	1.64	Greater knowledge
I know how to contact my energy supplier (n = 47)	3.98	4.31	0.33	
I know how to save energy in my home (n = 47)	3.98	4.25	0.27	Greater knowledge
I know if my home is well insulated or not (n = 47)	3.89	4.04	0.15	
I am confident that I am receiving all welfare/benefits payments that I am entitled to (n = 43)	3.84	3.83	-0.01	
I think that my local community is supportive of people who struggle to pay their energy bills (n = 42)	1.86	2.60	0.74	Greater sense of support
I feel a sense of stigma or shame because of my struggles with energy bills (n = 47)	2.32	2.81	0.49	

Table 10.13. Longer-term impacts on households of Phase 1 of the ZEZ home visit programme (energy literacy and know how). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Longer term impacts: the 'follow-up' survey

The ZEZ 'follow-up' survey contained five questions that retrospectively asked households about changes or impacts during the period since their participation in the home visit programme. This data is useful because, unlike the 'baseline' and 'follow-up' matched pairs analysis, the changes that are indicated can be directly attributed to the ZEZ home visit programme. The results are shown in Table 10.14. This survey was completed by 55 respondents (again, just two respondents from Phase 2). The findings from these questions provide further indications of the strengths of the ZEZ home visit programme. More than 90% of respondents agreed that they had learned about how to use less energy (93%) and reduce energy costs (91%), and that participation in the programme had improved the physical health (91%) and mental health (93%) of their household. Further, 85% agreed that they expected their energy bills to be lower as a result of participation.

	Agree	Neither	Disagree
I have learned more about how to use less energy through participation in the project.	49 (93%)	3 (6%)	1 (2%)
I have learned more about how to save on the cost of energy through participation in the project.	48 (91%)	4 (8%)	1 (2%)
I think my energy bills will be lower through participation in the project.	45 (85%)	6 (11%)	2 (4%)
Participating in the project has improved the physical health of my household.	48 (91%)	4 (8%)	1 (2%)
Participating in the project has improved the mental health of my household.	49 (93%)	3 (6%)	1 (2%)

Table 10.14. Longer-term household impacts of Phase 1 of the ZEZ home visit programme (n = 53).

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8.9. Energy advisor experiences and impacts (EO4.2)

The 'energy advisor' survey was sent several times to eight of the volunteer energy advisors. However, only two responded. Table 10.15 suggests that these two respondents did not have any negative views about their participation in the project. It is interesting to note that the two respondents agreed with the positive statements about the way in which the project was run and the ease of working with the project manager (as well their connections with the local community). Responses to the questions about the impacts of their participation on themselves are a little more ambivalent.

	Agree	Neither	Disagree
I have learned a lot and developed new skills through participating in the project delivery.	1 (50%)	1 (50%)	0 (0%)
My confidence has grown through participating in the project delivery.	1 (50%)	1 (50%)	0 (0%)
Participation in the project delivery has enhanced my CV and employability.	1 (50%)	1 (50%)	0 (0%)
The project was well-run	2 (100%)	0 (0%)	0 (0%)
The project management team was easy and flexible to work with.	2 (100%)	0 (0%)	0 (0%)
I feel more connected to my local community through participating in the project delivery.	2 (100%)	0 (0%)	0 (0%)

Table 10.15. Experiences of the ZEZ volunteer energy advisors (n = 3).

The responses to the open-ended, qualitative questions mentioned further positive aspects of volunteering on the programme: meeting other volunteers, helping people who need it, reassuring people in need that there are people who care, and working with the project manager. Although no negative points about the programme were raised, one of the respondents mentioned the trust issue that was raised earlier; in one case, the householder did not let the energy advisor into the house but accepted the 'energy kit' on his doorstep. Another comment by an energy advisor emphasised the value for many of the home visit recipients of having a visitor; this raises broader questions about social isolation and loneliness.

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8.10. Impacts on local partners

The ZEZ 'local partner' survey was shared with ZEZ's key local partners, both of which referred potential households to ZEZ. Both completed the local partner survey. The quantitative results from this survey are shown in Table 10.16. These findings speak for themselves and provide further evidence of the robustness and quality of the ZEZ approach.

	Agree	Disagree
The project has had a positive impact on energy poverty in participating households.	2 (100%)	0 (0%)
The project has had a positive impact on my own or my organisation's ability to work on energy poverty.	2 (100%)	0 (0%)
The project has enhanced my own or my organisation's appreciation of and respect for the challenges faced by households in energy poverty.	2 (100%)	0 (0%)
The project was well-run by ZEZ.	2 (100%)	0 (0%)
The project has created and/or supported local networks of organisations and individuals working on energy poverty.	2 (100%)	0 (0%)
I would be keen to collaborate on future energy poverty work with ZEZ.	2 (100%)	0 (0%)

Table 10.16. Feedback from the ZEZ local partners (n = 2).

The qualitative comments from the two local partners provide further insight into the value that they place on the ZEZ approach. One of the respondents commented that the 'Ease their Troubles' programme had done a lot to raise awareness and understanding of energy poverty among participants and in their own organisation; the respondent added that 'everything was done very professionally' by ZEZ. The other respondent highlighted the range of immediate benefits for households but also the longer-term and widespread impact that the project will have on policy and practice. Emphasising the importance of partnerships, this respondent also noted that the ZEZ project provides a win-win outcome for organisations that have shared objectives.

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8.11. Legacy

The CEES project has produced the following legacy for ZEZ:

1. ZEZ now has established and proven practices and systems for campaigns to collect donations from the public and from corporations to support work on energy poverty (to the extent of purchasing 'energy kits').

2. ZEZ has developed approaches through which it can attract older people in energy poverty, or at least older people on low incomes, to its programme. This includes taking referrals from a local network and making a TV appearance.

3. ZEZ has also developed an approach to home visits for older people in energy poverty that has been shown in the evaluation to have produced positive impacts on a range of aspects of energy poverty and energy know-how.

4. In addition, although this was not as productive as had been hoped, ZEZ has learned a lot about recruiting, motivating, training and managing volunteer energy advisors.

5. As a direct result of the work in CEES, the ZEZ project manager has been invited to participate in a City of Zagreb working group on energy poverty. She put it like this:

   'In December 2023, I was invited to be a part of the City of Zagreb working group along with social workers, the regional energy agency, to implement a policy programme to 2030 for alleviating energy poverty, and now it has several measures in it, and a budget and everything. This all comes from CEES. I think we have a real chance to implement the knowledge that we gathered from all of our pilots, whether it's the Croatian one or the other ones. And the toolkit and everything that will be an output of CEES will surely be an input for this programme.'

6. During the implementation of the Ease Their Troubles project, in May 2023, a short video about the project, called People Saving Energy, was included in the European Commission's Audiovisual Service website (see below).

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The People Saving Energy video. Link to video.

8.12. Key learning in the ZEZ pilot

Preparing for energy solidarity work

1. The ZEZ pilot demonstrates the value of an organisational structure that allows work on energy poverty to be planned and implemented relatively independently of the need for approvals from other internal departments.

2. The ZEZ pilot shows that it can be challenging to keep accurate records of large numbers of households' progress through a project. A Customer or Client Management System (CMS), such as that used by ALIenergy, would probably help with this.

Fund

1. While micro-donations following the Energie Solidaire model are appropriate for energy generating communities that have their own customers, this is a very challenging approach for organisations that do not have customers.

2. Although these are time-consuming undertakings, programmes to support public and corporate donations have the potential to provide valuable income. The ZEZ model for both of these activities provides useful guidance for other energy communities.

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Identify

1. The ZEZ referral network approach is valuable but household mistrust of organisations makes this process challenging and time-consuming.

2. The word-of-mouth efforts of an early participant in the home visit programme and an appearance by ZEZ on a popular local TV breakfast programme brought many households to the pilot.

Alleviate

1. Working as an energy advisor is highly specialised work, requiring a blend of social skills and technical skills. As such, it is important to implement specific processes to recruit and train suitable people.

2. The work of an energy advisor can be emotionally challenging. To address this concern, it is very helpful to develop processes to take care of energy advisors' well-being and resilience.

3. The ZEZ home visit approach (with 'energy kit' delivery) provides a robust and effective model for energy poverty alleviation activities. The approach relies on the value of the 'energy kit', bespoke energy advice and an understanding and empathetic approach that recognises the challenging circumstances of many households in energy poverty.

4. The evaluation indicates that the ZEZ home visit approach has been effective in alleviating energy poverty in some respects.

5. The experiences of ZEZ highlight both the benefits and challenges of working with young volunteers. While volunteers can bring additional and relatively cost-free resources to a project, working with volunteers is less reliable and predictable than working with employed staff.

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9. Les 7 Vents

9.1. Summary (EO1)

The evaluation report addresses the following mechanisms.

The new CEES mechanisms

1. **Fund:** test and tailor microdonations mechanism (inspired by Energie Solidaire)[33] and – as necessary – investigate other fundraising mechanisms.

2. **Alleviate - hard:** implementation of a Shared and Supported Self-Renovation (3SR) programme (inspired by Enerterre). 3SR involves householders working with local professional tradespeople and volunteers (who are often previous beneficiaries or planned future beneficiaries of the 3SR approach) to engage in energy efficient and sustainable renovation and refurbishment of their homes. The labour costs are lower within the 3SR approach due to the work that is undertaken by the householder and the volunteers. Within the Les 7 Vents 3SR programme, this approach was targeted towards people in energy poverty.

Associated mechanism

3. **Identify:** Households that appeared to be in energy poverty and might be suitable for 3SR were referred to the Les 7 Vents 3SR team by the Les 7 Vents' team of energy advisors. This was followed by assessments of the suitability for 3SR by the Les 7 Vents 3SR team.

[33] The Energie Solidaire model allows energy customers to give a microdonation as part of their energy bills.

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Evaluation summary

Fund

In common with several other CEES pilot partners, Les 7 Vents sought to diversify its sources of funding beyond grant funding. Also in common with other pilots, Les 7 Vents was inspired by Enercoop's Energie Solidaire microdonations approach. Since it does not have its own customers, and therefore could not implement such a scheme, Les 7 Vents decided to pursue microdonations schemes with local builders' merchants and DIY (do it yourself) stores and with local builders and craftspeople. The idea was that members of the public would have the option to add a microdonation when they bought materials or services from these suppliers and tradespeople.

Les 7 Vents experienced considerable challenges in these efforts. A key challenge was that Les 7 Vents is not constituted in a way that allows it to provide tax relief on donations, although a way around this would have been possible in partnership with Enerterre, which is able to do this (Enerterre is also the local partner that inspired Les 7 Vents to focus on shared and supported self-renovation in its Alleviate mechanism). In the case of the builders' merchants and DIY stores, further challenges included a geographical mismatch between the local focus of Les 7 Vents and the national scope of the larger chains, coupled with the complexities and costs of setting up such a scheme for independent outlets. This latter challenge also applied to efforts with local builders and craftspeople. As a result of these challenges, Les 7 Vents was not able to implement these plans for fundraising.

As the CEES project progressed – and the Les 7 Vents team gained experience and expertise with respect to energy poverty alleviation – the organisation was able to demonstrate a track record in new funding bids. In early 2024, Les 7 Vents learned that it had been successful in securing up to €210,000 from a French government scheme called *Stop à l'Exclusion Energétique* to work on energy poverty alleviation over three years. In June 2024, discussions for further funding from this scheme are ongoing. This funding is described in more detail in the Fund section.

Alleviate

Les 7 Vents' Alleviate mechanism was a hard/renovation approach known Shared and Supported Self-Renovation (3SR) (this was inspired by Enerterre). 3SR involves householders working with local professional tradespeople and volunteers to engage in energy efficient and sustainable renovation of their homes at a lower cost than would be possible otherwise.

It is important to note that, due to the costs and intensive work involved, the number of households in a renovation/hard Alleviate mechanism is always likely to be smaller than in a mechanism based around energy advice and small measures. Thus, during the CEES project, Les 7 Vents was able to sign contracts with five households; four of these projects were implemented in 2023 and one was implemented in 2024.

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Les 7 Vents was able to interview the four households whose projects were implemented in 2023. These interviews show that the support of Les 7 Vents to co-ordinate and implement the four worksites was highly valued by the householders and that the worksites were able to achieve much more and at a much lower cost than would have been possible without the 3SR approach. The households also reported expectations of longer term financial benefits as well as appreciation of the personal benefits of being supported by volunteers and the invaluable input of the professionals.

That said, the householders also reported that being the host of a 3SR project can be very stressful and tiring. In terms of planning, despite the support of Les 7 Vents, it was often challenging to co-ordinate the professional craftspeople, the volunteers and the materials to be in the right place at the right time. In addition, Les 7 Vents found that there was insufficient capacity among local tradespeople in the context of the ongoing work of Enerterre. During the worksite itself, households reported that welcoming and catering for a group of volunteers is time-consuming and expensive (in terms of providing food). Despite these challenges, all four of the households spoke of very positive experiences.

Identify

Households that might be suitable for 3SR, because they appeared to be in energy poverty, were referred to the Les 7 Vents 3SR team by the Les 7 Vents team of energy advisors. This was followed by assessments of the suitability for 3SR by the 3SR team. The 3SR team reported that there appeared to be difficulties with some of the energy advisors, who seemed unenthusiastic about making referrals; this was perhaps because they had not been included in the CEES Horizon 2020 application process. Further, the way in which the energy advisors are paid by the French government scheme had recently changed from per hour to per action (e.g. home visit or phone call); this was already placing unhelpful pressure on the energy advisors to conduct shorter home visits and the 3SR work could well have been seen as an additional unwelcome burden. In practice, only five of the twelve energy advisors made referrals. Nonetheless, the Les 7 Vents 3SR team was able to exceed its targets. The 3SR team reported that the assessment processes, by telephone and in home visits, was successful but very time-consuming to implement.

Legacy

On funding, in addition to success with a grant funding bid, Les 7 Vents is also planning to continue working on two avenues for funding work on energy poverty. First, in 2021 and 2022, a Les 7 Vents staff member underwent training as a Corporate Social Responsibility and Environment, Social and Governance consultant. Les 7 Vents intends to offer this consultancy service to local companies and, as part of this, to encourage companies to make donations to Enerterre to support 3SR. Second, giving the customers of local builders the option of paying a microdonation – or, to put it another way, to pay a 'solidarity rate' – to support work on energy poverty. Les 7 Vents will learn directly about this approach from another French organisation that has implemented such a scheme. In addition, Les 7 Vents is now in a good position to seek further grant funding for this work.

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On Alleviate, the key legacy of the CEES project is that Les 7 Vents is now in a position to seek further grant funding for this work. Largely due to the tradespeople capacity challenge described above, Les 7 Vents does not plan to continue with its own 3SR projects. However, it will continue to promote and refer households to the Enerterre 3SR scheme.

9.2. Introduction (EO1)

About Les 7 Vents

Based in rural Normandy, France, Les 7 Vents provides individuals and organisations with advice and support for projects on energy transitions and sustainable lifestyles. Les 7 Vents has a team of 12 energy advisors who work with households on energy efficiency, largely through home visits. The area in which Les 7 Vents works is characterised by many residential buildings that are constructed using earth and are very inefficient with respect to heating loss. In combination with the precariousness livelihoods that are common in this rural and relatively remote area, this leads to widespread energy poverty.

The Les 7 Vents pilot project

As described above, the evaluation report addresses the Fund mechanism, an Identify mechanism and an Alleviate (hard) mechanism that were implemented in CEES.

Timings

	2022			2023				2024	
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
Funding									
Identify: identification of households for 3SR									
Alleviate: co-ordination and implementation of 3SR projects									

Table 8.1. Timescales for the Les 7 Vents pilot project.

Organisational structure

The various elements of the Les 7 Vents pilot project were managed by a project manager and a delivery manager, both reporting to a Les 7 Vents director. Both of the managers joined Les 7 Vents during the

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CEES project, necessitating several project hand-overs. Although this is common challenge in projects, it is clear that this impacted on project delivery.

9.3. Fund (EO2)

Introduction

In common with several other CEES pilot projects, Les 7 Vents wanted to diversify its sources of funding beyond grant funding. The challenge with grant funding is that the funding has to be dedicated to specified activities within a specified timeframe; this means that it can be challenging to cover core costs and to respond to changing circumstances. Les 7 Vents added that applications for grant funding are time-consuming with no guarantee of success.

Microdonations and donations

Process

Also in common with other CEES pilot projects, Les 7 Vents was inspired by the Energie Solidaire microdonations model. However, since it does not have its own customers, Les 7 Vents quickly realised that this model was inappropriate for its own funding ambitions. With this in mind, Les 7 Vents began working with its local stakeholders to consider and investigate a range of potential approaches to funding:

- In partnership with local and regional builders' merchants and DIY (do it yourself) stores, a scheme to collect microdonations from customers. This was the focus of most of Les 7 Vents' work on financing.
- In partnership with a co-operative of local tradespeople, a scheme to collect microdonations from customers. In this case, the idea was that the donations would be used to buy building materials for 3SR projects and the tradespeople would provide labour on a voluntary basis. Les 7 Vents spent much less time on this idea.
- Corporate Social Responsibility donations from local companies.

Challenges

Les 7 Vents experienced a range of challenges with this work. First, due to the way in which it is incorporated, Les 7 Vents was not able to provide tax relief on donations. This is the same challenge that Enercoop experienced and led to Enercoop setting up Les Amis d'Enercoop as a charitable organisation that could collect donations. In response to this challenge, Les 7 vents considered partnering with Enerterre, which is already able to provide tax relief on donations. Within the context of working with Enerterre, another interesting challenge was that Enerterre had stringent ethical criteria, particularly relating to sustainability, for organisations that it would be willing to accept donations from.

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Les 7 Vents spent a lot of time investigating options for microdonations from the customers of builders' merchants and DIY stores. A number of specific challenges were experienced here. Many outlets were part of national chains and this was at odds with the local focus of Les 7 Vents. Some national chains already had donation schemes in place. At the other end of the scale, local independent stores were put off by the administrative burden and costs of a microdonations scheme. In addition, the two main French microdonations platforms collect their fees from the partner organisations (in this case, the merchants and stores); not surprisingly, this was also off-putting. On a different note, Les 7 Vents found that the 3SR concept was challenging and off-putting for some stores. One local builders' merchant offered to donate left over materials, however, this was considered impractical in terms of storage and matching the available materials with 3SR project needs.

Outcomes

Despite devoting considerable effort to this work, the challenges described above were insurmountable and Les 7 Vents was not able to raise funds in this way during the CEES project. Discussions with other organisations in France in the course of the work suggests that it take around 24 person-months to set up such a scheme from scratch, and this would not have been possible within the timeline of the project, regardless of other challenges.

Grant funding

As the CEES project progressed, Les 7 Vents' knowledge and experience with respect to energy poverty alleviation grew enormously. In addition, its network of local partners for this work had been strengthened. As a result of these developments, during 2023, Les 7 Vents was able to apply for grant funding for work on energy poverty.

In early 2024, Les 7 Vents learned that it had been successful in securing up to €210,000 from a French government scheme called *Stop à l'Exclusion Energétique* to work on energy poverty alleviation over three years. In June 2024, discussions for further funding from this scheme are ongoing. As part of this grant, two Les 7 Vents energy advisors will be trained as energy poverty alleviation specialists. These energy advisors will work in-depth on energy poverty alleviation with 30 households on in-depth energy poverty alleviation projects that will include energy efficiency advice, small measures, support with applying for grants and limited larger measures (such as insulation and efficient heating systems). Known as *ensemblier solidaires* (or solidarity contractors), they will also play a key role in building networks for local cooperative action on energy poverty. Les 7 Vents reported that securing this funding would not have been possible without participation in CEES.

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9.4. Identifying households for 3SR (EO3)

Referrals from the Les 7 Vents energy advisors

Process

Les 7 Vents has a team of 12 energy advisors that advises households and businesses on energy demand reduction, renewables and other sustainability issues. The 3SR Identify process began with the 3SR team briefing the 12 Les 7 Vents energy advisors about 3SR and how to recognise potential beneficiaries of 3SR (in terms of the household's financial situation, and the building type and condition). This took place in June 2022. The 3SR team also liaised with some of the energy advisors on an ongoing basis to answer queries and minimise the number of inappropriate referrals. Thereafter, the plan was for the 12 energy advisors, in the course of their visits to households, to identify potential beneficiaries of 3SR and refer them to the 3SR team.

Challenges

The 3SR team reported difficulties among the energy advisors with respect to the additional work that they needed to do in the context of 3SR. A key reason for this was related to recent changes to the ways in which the energy advisors are funded and remunerated by the French government scheme. In the past, the energy advisors were remunerated by the government scheme by the hour. More recently, this was changed such that the energy advisors are remunerated by the action (home visit, telephone call or other meeting). This change in policy within the government scheme had already created pressure on the energy advisors to conduct shorter home visits in order to maintain a reasonable income. Within this already challenging context it is not surprising that the additional requirement to identify households for the 3SR project created further pressure among the energy advisors.

Les 7 Vents made the following comment:

> *'At the beginning it was really complicated to go and see the advisors and say, "Yes, we know that you are overwhelmed, but we would like to have more information from the people that you advise. This is the table of information we need to be filled." So, this was really difficult, and this is what we had to go through at the beginning of our 3SR mission.'*

The role of the energy advisors in the 3SR project was decided by the directors of Les 7 Vents, without consultation with the energy advisors themselves. It is possible that greater engagement with the energy advisors while the 3SR project was being planned, might have alleviated some of these tensions. A further problem was that the energy advisors sometimes referred households that were clearly inappropriate for the CEES 3SR project. For instance, several of the referred households were interested in a 3SR project for a second home that they rent to tourists. Such misunderstandings required repeated briefing sessions. Nonetheless, the 3SR team was happy to report, *'I'm not really disappointed about that, I think it's normal at the beginning'*.

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Outcomes

As a result of the difficulties with the energy advisors, the 3SR project managers noted that only five of the 12 energy advisors appeared to be meaningfully engaging with the 3SR project by providing referrals. Nonetheless, these energy advisors referred a total of 43 households to the 3SR team, which exceeded the target of 30[34]. It is important to note that some of the households that were referred already had renovation projects under way for between 1 and 3 years.

Pre-assessment of the households

Process

The process of pre-assessing the households took place on the telephone and was conducted by the 3SR team. At this stage in the process, the 3SR team assessed each household's eligibility for the Les 7 Vents 3SR programme on the basis of the presence or not of energy poverty. To clarify eligibility, Les 7 Vents used two definitions of energy poverty that are widely used in France. In the first of these, energy poverty is understood as when a household is spending more than 8% of its income on energy (the percentage was recently lowered from 10% to 8% in the French definition). The second definition defines energy poverty as when someone suffers from cold or heat in their house for 24 hours in a row during last year[35]. This assessment relied upon information provided by the householder and was often a very rough calculation. In addition, during the pre-assessment, the 3SR team established the readiness of the household for a 3SR project.

Challenges

Although this process went smoothly, the 3SR team noted that it was more time consuming than had been expected.

[34] The targets in the Les 7 Vents 3SR programme were based on advice from Enerterre.
[35] See further discussions of French definitions of energy poverty see:
https://www.precarite-energie.org/comprendre-la-precarite-energetique/comment-ce-phenomene-est-il-observe-en-france/
https://www.territoires-climat.ademe.fr/ressource/45-16
https://www.cairn.info/revue-informations-sociales-2014-4-page-115.htm.

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Outcomes

Of the 43 households that were referred to the 3SR team, 18 did not go beyond the pre-assessment on the telephone. Three of these were because the household did not appear to be in energy poverty (one household that might not have been in energy poverty was taken forward to the full assessment stage because of the very poor health of the occupants). Other common reasons for not proceeding beyond the pre-assessment were that the household was not ready to proceed, the building had little or no potential for renovation, or it was not possible to contact the household. This meant that 25 households were considered to be suitable and eligible for the 3SR project and proceeded to the full assessment stage (compared to a target of 15) (see Table 8.2). It is worth noting that, despite the early challenges, the conversion rate was higher in the Les 7 Vents 3SR programme (58%) than had been expected based on the advice from Enerterre (50%).

	Target	**Actual**
Number of pre-assessment telephone calls	30	43
Number of households that proceeded to the full assessment	15 (50% of the total)	25 (58% of the total)

Table 8.2. Targets and actual achievements in the Identify mechanism.

The full assessment

Process

The full assessments were undertaken at the property and consisted of fully explaining the 3SR process, including the challenges that it presents for households, and recording comprehensive information based on conversations with the homeowners and observations of the property. The information was recorded in a form that was based on the one previously used by Enerterre and was used to plan the implementation of the 3SR projects at each household. The visits lasted between 1.5 and 2 hours and included the following information:

1. The renovation work already done.
2. The renovation work still needed.
3. The renovation work feasible within 3SR.
4. What the owner wanted to do alone, with volunteers, and with professional craftsmen.
5. The budget of the householder.
6. The availability of the householder, the ideal schedule for the work and the maximum schedule for the work.
7. The constraints of the householder, such as work commitments, children and other caring responsibilities.
8. Where the household would live during the renovation work.
9. The safety of the work site, especially for volunteers.
10. The psychological/emotional readiness of the household to undertake a challenging 3SR process.

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Challenges and outcomes

As would be expected, the task of arranging and conducting 25 home visits of up to two hours each was very time-consuming. This challenge was amplified by the rural nature of the area, which necessitated round trips of up to three hours to visit households. Nonetheless, these were completed.

A 3SR worksite.

9.5. Alleviate: the 3SR process (EO4.1)

Process

The process of planning, scheduling and implementation of 3SR projects is inherently complicated and challenging because it has to take into account:

- The availability of:
    - The homeowner
    - Finance from the homeowner
    - Alternative accommodation for the homeowner
    - Volunteers
    - The appropriate professional tradespeople (with appropriate accreditations) who are willing to work in more formal ways (rather than informal or – as Les 7 vents put it – 'invisible' ways).
    - The necessary materials and tools

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- The need to conduct some renovation tasks during the spring and summer. This is to allow sufficient time for some of the materials (e.g. lime) to cure and set before the adverse weather of the winter months.
- Complicated arrangements for contracts (which had to be based on very accurate cost estimates) and insurance for all participants (homeowners, tradespeople and volunteers).

These issues are discussed further below, from the perspective of the householders. Les 7 Vents reflected that the Covid-19 pandemic, the war in Ukraine and the ensuing rises in energy prices, and generally high inflation, made this process even more challenging. This was due to the impact of rising energy costs on the homeowner, making 3SR both more necessary and less affordable; the increased price and reduced availability of materials; the rising costs of professional labour; and the lower availability of volunteers (who needed to do more paid work). In addition, Les 7 Vents found that some of the professional tradespeople were already very busy with Enerterre 3SR projects and were less willing to work with Les 7 Vents because it was a new organisation in the 3SR space.

Outcomes

As shown in Table 7.3, a total of five 3SR projects were implemented and completed during the CEES project. Four 3SR project worksites were implemented and completed in the first half of 2023 (these were all renovation projects that had been already started by the householder and were continued in 3SR). A further project worksite was implemented in the first half of 2024. Table 7.3 shows that, while the target was to complete nine 3SR projects, only five could be completed. Les 7 Vents reported that this was largely due to the availability of professional tradespeople, often because they were already working on Enerterre 3SR projects. As a result of this challenge, Les 7 Vents realised that there is insufficient capacity among the local tradespeople to support 3SR projects by both Enerterre and Les 7 Vents. Therefore, the decision was taken for Les 7 Vents in future to revert to its earlier role of referring households to Enerterre for 3SR.

	Target	**Actual**
Full assessments completed and entering the planning and scheduling phase	15	25
3SR projects implemented and completed in CEES	9 (60% of the full assessments	5 (4 in 2023 and 1 in 2024) (25% of the full assessments

Table 7.3. Targets and actual achievements in the Alleviate mechanism.

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9.6. Alleviate: household experiences and impacts (EO4.2)

Introduction

As a renovation project, 3SR is very different from the other Alleviate mechanisms that were implemented in the CEES pilots (these tended to focus on energy advice and smaller measures). A key difference between these two types of project is that the number of participants in renovation projects is likely to be a relatively small, while the numbers of household participants in most of the other pilots was much greater.

Turning to evaluation, the key implication of this is that the surveys developed for the evaluation methodology for CEES were less suitable, as this method relies on getting a reasonable sized sample for statistical testing. For this reason, the 3SR project manager instead implemented an informal interview with each of the four participating households whose worksite was completed in 2023. The informal interviews took place in October 2023. The interviews followed a consistent topic guide/protocol (this can be seen in Appendix 1) and householders' comments were recorded by taking notes. The householders' consent was secured for their comments to be reported anonymously in CEES outputs.

About the households

The households had a range of demographic characteristics. One household was a young couple. Notably, two of the households were single woman households, one aged around 40 and the other aged around 60. The fourth project was a little different. The purpose of the project was to build an energy efficient strawbale house for an elderly couple with health problems. This project was managed and implemented through 3SR by the sons and daughter of the elderly couple.

Although the households were different in these ways, they were also similar in several respects. For instance, they all had previous experience of volunteering in 3SR-type projects; thus, they knew what to expect to some extent and already had some valuable skills and knowledge. The households were also similar in that they had already started their self-renovation project before joining the Les 7 Vents 3SR programme. Indeed, one of the houses had been renovated in stages since as long ago as 2003 and only became habitable in 2013. It is important to note that, in most cases, the 2023 3SR worksite was just the latest stage of the renovation and there will be more stages in the future.

Finally, while all of the households were motivated by the financial advantages of 3SR (both during and after the renovation), they were also strongly motivated by the participatory ethos of 3SR, which they variously expressed as sharing, mutual aid, community, human exchange, cooperation and participation. Encapsulating these motivations, one of the women stated, *'People are my fuel'* and continued, '*Participatory renovation projects also participate in the renovation of people'*.

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The situation prior to the renovation

Not surprisingly, the three households that were renovating their current homes revealed that their properties were very energy inefficient prior to their renovation. One of the householders spoke of single skin walls, single glazing and no insulation; another of large rooms that were impossible to heat. Households described inadequate heating systems, living in cold conditions, living in one room and cooking just once or twice a week. One of the women described living in 'isolation, with the shutters closed', due to the conditions in her home (there were also additional reasons for this), while the young couple spoke of limiting their social interactions at home.

Preparing for 3SR

Where to live during the renovation?

Three of the four participants needed to decide whether to live in the property that was being renovated or to try to live elsewhere during the renovation[36]. Both of these options bring challenges. The younger woman had to move several times and lived in a caravan, a friend's house and in the property that was being renovated. For their part, the young couple lived in the house while it was being renovated. The older woman also lived in the property that was being renovated. She commented that it was very challenging to clear the rooms that were being worked on.

Planning and co-ordinating the work

One of the householders stated that they did not have any problems planning and co-ordinating the renovation work, noting that they are very organised. The other households noted a number of challenges.

In terms of finding and making the arrangements with volunteers, one of the householders observed that they initially felt uncomfortable seeking this kind of support. Another noted that finding volunteers was challenging until, through Les 7 Vents, they were able to draw on Enerterre's network of volunteers. The young couple also commented on the challenge of finding volunteers within the context of changing plans and a winter worksite:

> *'We changed the date several times and we were able to set the date one week before. So it wasn't easy to find people available during the week, and maybe also at this time in December. Inevitably, this has an impact on the mobilisation of the volunteer network.'*

Several of the householders commented positively on the role of Les 7 Vents in planning and co-ordinating the various aspects of the renovation (professionals, volunteers, materials etc). One of the householders made the following highly positive comments:

[36] The fourth project was a new build so everyone was able to live in their existing homes during the project.

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'Given the scale of the project, managing to get volunteers was complicated, I had put ads on Twiza [this is a French eco-building network] and I only had one person, the impact of your communication with the network of the Enerterre association was a real plus, we received a lot of requests thanks to your network.'

'I had confidence, I felt safe after meeting Les 7 Vents, then the professionals who came to make the estimate. You were able to actively listen, not judge, and propose solutions that took into account what I really wanted, and you've taken the land into account. It's an accompaniment in the planning. It's really about cooperation, communication and kindness, so I trusted you. '

Experiences of 3SR worksites

Overall perspectives

The four households were united in describing their experiences of 3SR as rewarding but also challenging in some ways. One of the participants acknowledged that they had expected the experience to be worse than it actually was:

'Before I had a construction site at home, I imagined it would be worse than it actually was, it was a pleasant surprise. It's good, it's an enriching experience, but tiring. Being a handyman is important, and not being a perfectionist, you have to accept imperfections, challenges. It's the adventure, the construction site.'

The role of the professional craftsmen

The householders typically responded very well to the professional craftspeople, commenting positively on the teaching that the professionals provided as well as the ways in which they engaged with the volunteers:

'The craftsmen who came to supervise were very good in terms of pedagogy, they give tasks which we feel able to do, and we can leave the very technical tasks to them.'

'She was very technically proficient, she is both flexible and firm, clear, without abusing power. She is human, simple and generous. It's a real accompaniment, the best! She has a knack for not making you feel like you're rubbish. She makes sure not to leave the volunteers in the wrong. It's comfortable for everyone, and it's full of conviviality.'

'Brilliant, very competent, self-assured, clear, gives time to each volunteer, knows how to manage his group well, brings friendliness and technicality. We couldn't have asked for anything better.'

At the same time one of the households commented that it can sometimes be difficult to follow the instructions of the professional and another noted the challenges of getting everything ready for when the professional would be on site:

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'The craftsman trained us, and then we had to be able to train the volunteers. It's true that he explains quickly, without being precise, it's not always easy to understand all the steps when you don't know the technique.'

'The professional was there for 15-day sessions, everything had to be ready each time, we had disappointments and so we were delayed several times and it was up to us to make sure that nothing was missing so that the volunteers only had to "do", It involved a lot of fatigue.'

Les 7 Vents also reported the view that the tradespeople were sometimes not very adept at communicating with householders and volunteers. At the same time, Les 7 Vents reported that the tradespeople themselves were sometimes frustrated by what they saw as the lack of preparation by the householders, prior to their arrival on site, and unrealistic expectations on the part of volunteers about the realities of a 3SR worksite project. It is clear that the role of the professional tradespeople is challenging to get right.

The role of the volunteers

The householders all spoke very warmly and positively of the contributions of the volunteers. In particular, it is clear that the volunteers enable labour-intensive tasks to be completed much more quickly than would be possible otherwise. Householders also spoke positively of the strong sense of community that was created and experienced by everyone involved. Not surprisingly, the householders also described challenges working with volunteers

'It was a joy to see that people cared about me, that they came to help me. To see my house alive, to hear noises, voices, positives, laughter, to see the work progressing so easily. To discover new people, people who sometimes live right next door. It moves me. I'm finally taken care of, it feeds a part of you, life gives you a gift of care.'

'These projects are labour-intensive and lend themselves well to welcoming volunteers. Our project is a solidarity project, my brothers and sisters are already participating and having the support of volunteers is very enriching and gives balm to the heart when we see the progress after each day in the participatory worksite.'

'What was difficult was letting strangers into my home. I'm hoarding, I'm living in boxes, my deceased parents' stuff is still here. It's difficult to welcome people in these conditions. I've always taken care of people other than myself and now I'm being taken care of.'

'The investment for food, I didn't look at the expense, and the time to prepare, I wanted to offer a good hearty meal to the volunteers and it's still a cost that we don't really anticipate.'

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'It's time-consuming to welcome volunteers, each time one arrives. I thought it would be faster with a group of volunteers, I thought we would have done more m². As for the atmosphere, I imagined it would be friendly, and it was great!'

Impacts of 3SR

As was noted above, the householder interviews were conducted by Les 7 Vents in October 2023, just a few months after the 3SR worksite and before the winter of 2023-2024. In addition, it is important to remember that, in some cases, future phases of renovation were still to come. Nonetheless, the householders described impacts from the 3SR projects relating to learning and to improvements in their economic situation:

'I am tired but happy, I learned a lot on my construction site. '

'An economic gain for sure, mutual aid helped me a lot.'

9.7. Legacy of the CEES pilot for Les 7 Vents (EO6)

Fund

1. Les 7 Vents now has a track record of work on energy poverty alleviation. This has already resulted Les 7 Vents successfully securing a grant of up to €210,000 and places Les 7 Vents in a good position to apply for further grants to work on energy poverty alleviation in the future.

2. Les 7 Vents has learned a lot about the challenges of setting up microdonations schemes with local builders' merchants and DIY stores, and with builders and tradespeople.

3. On the basis of this experience and the Fund section in the CEES Energy Solidarity Toolkit, Les 7 Vents has now developed a new funding diversification strategy. This will focus on two activities: setting up a microdonations scheme in which householders can add a microdonation to their bill for building services and securing Corporate Social Responsibility donations from local businesses to support Enterterre's 3SR work.

Identify

1. During the course of the CEES 3SR project that Les 7 Vents ran, and its participation in CEES, Les 7 Vents has learned a great deal about identifying and recruiting people in energy poverty. This knowledge will be very useful in the context of its new grant funded project on energy poverty alleviation.

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Alleviate

1. As a direct result of the CEES project, the new grant of up to €210,000 that Les 7 Vents has secured will support in-depth work on energy poverty alleviation with 30 households over three years.

9.8. Key learning from the Les 7 Vents pilot

Fund

1. In the absence of energy customers, it is very challenging to set up a microdonations scheme; for instance, with builders' merchants and DIY (do it yourself) stores. Key challenges include mismatches between local objectives and national chains, the upfront work and costs for the companies and becoming an entity that can accept donations.

2. Once an organisation starts to work on energy poverty alleviation, it can relatively quickly establish a track record, opening up the possibility of securing grant funding for such work.

Identify

1. Partnerships with other groups (in this case, the Les 7 Vents energy advisors) to identify people in energy poverty and to refer them to energy solidarity projects are very helpful. At the same time, such partnerships can be challenging to set up, particularly with respect to consistently referring the right kinds of households. In addition, the Les 7 Vents pilot illustrates that it is important to engage with other internal teams earlier in the process of applying for funding that will create new tasks for those teams.

Alleviate

1. The 3SR approach offers the potential to reduce renovation costs and future energy costs for householders.

2. Further, the 3SR approach brings valuable learning opportunities for householders and volunteers, and can bring a powerful sense of partnership, community and collaboration for all participants.

3. At the same time, renovation projects such as 3SR, are challenging to set up and implement. This is the case for the organisation that is co-ordinating the work, for the householders, for the professional tradespeople and for the volunteers. Key challenges include making sure that all

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the personnel and the materials are all in the right place at the right time (particularly the professional tradespeople) and administrative issues such as contracts and insurance.

4. The Les 7 Vents 3SR pilot shows that the capacity for such projects in a particular locale can be limited by the capacity and availability of the local tradespeople.

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10. Repowering London

10.1. Summary

The evaluation report addresses the following mechanisms:

New CEES mechanism

1. **Fund:** test and tailor microdonations mechanism (inspired by Enercoop) and – as necessary – investigate other fundraising mechanisms.

Additional mechanism

2. **Alleviate:** drawing on Repowering London's established practices and making use of the funds raised in the new CEES mechanism, implementation of a roadshow of public energy poverty awareness and advice events.

Evaluation summary

Fund

The core objective of Repowering London's CEES pilot project was to diversify its portfolio of funding sources beyond grant funding, starting with microdonations (inspired by Enercoop's Energie Solidaire programme). The plan was to use the funds raised to support a programme of energy poverty events later in the project (Alleviate mechanism). Given that Repowering London does not have customers, the team explored options for microdonations schemes with local high street retailers. However, this was not possible in the context of the 'energy crisis' and the complexity of setting up such a scheme.

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As the challenges with the microdonations approach became clear, Repowering London turned its attention to seeking local retailer and corporate donations and service contracts. With respect to corporate donations, despite considerable effort, it was not possible to secure any donations during the CEES project time period. Repowering London was successful in securing an offer of a €5,750 donation from the Corporate Social Responsibility fund of a local company; however, the company was unable to make this donation because Repowering London is not a charity. On public donations, Repowering London was able to secure €2,855. These funds were used alongside other grant funding in the Repowering London roadshow (see Alleviate below). More significantly, in April 2024, Repowering London secured a service contract partnership worth €237,554, with SGN (this is a UK gas network operator, as opposed to a retail supplier), for the provision of energy poverty services in south London, in a project called Warm and Well Networks. Running from May 2024 to March 2026, this project was too late to be included in the CEES evaluation. In the later stages of the CEES project, Repowering London developed further innovative plans for funding (these are discussed below in the Legacy section).

Alleviate

Repowering London used the funds that it raised from public donations (and other grant funding) to support a programme of public energy poverty 'drop in' advice events, in community settings, in late 2023 and early 2024. By April 2024, Repowering London had implemented 10 roadshow events and had directly engaged with 139 people. This programme of events will be continued within the context of the SGN project.

Legacy

Looking to the future, Repowering London is in the process of submitting a license application to the UK regulator to become an energy supplier. A key legacy of the focus on energy poverty in the CEES project is that Repowering London plans to tackle energy poverty by providing energy at well below market rates. Further, as the result of Repowering London's visit to Les 7 Vents in France (as part of CEES Open Day 3 in March 2024), Repowering London is now considering how it could set up a retrofit donations scheme in which regular retrofit customers will have the option to pay a 'solidarity rate' that includes a donation to fund retrofit for people in energy poverty. As noted above, as part of Repowering London's SGN service contract, a further legacy of CEES will be the provision of energy poverty services in south London to March 2026.

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10.2. Introduction

About Repowering London (EO1)

Working in urban London, Repowering London is a not-for-profit company that specialises in the co-design and co-production of community-owned renewable energy projects and advocating for change to support a just transition to net zero. Repowering London has a strong track-record of in-depth engagement with households, including households in energy poverty, and the involvement of local citizens in the co-creation and co-delivery of its projects.

The Repowering London pilot project (EO1)

As noted above, the evaluation report addresses Fund mechanisms and an Alleviate mechanism.

Timings

The timings of the Repowering London pilot are shown in Table 9.1.

	2022	2023				2024	
	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Fundraising							
Energy Roadshow							

Table 9.1. Timescales for the Repowering London pilot project.

Organisational structure

These Repowering London mechanisms were managed by a Repowering London manager, with delivery support on the Roadshow events. The manager of this work changed twice, due to staff leaving Repowering London. While this is a common phenomenon, it appears likely to the evaluators that this impacted on the project implementation.

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10.3. Fund (EO2)

Background

The starting point for Repowering London's work on funding was a desire to diversify its sources of funding for work on energy poverty beyond grant funding. As other partners reflected, reliance on grant funding means that it is challenging to cover core costs – including, as Repowering London put it, 'our finance officer, our comms officer and our CEO' – and to maintain staffing levels over time. Interestingly, Repowering London has previously worked with fundraising consultants. Nonetheless, this issue has remained very difficult for Repowering London to solve, indicating how challenging it is.

Repowering London was originally inspired by the Energie Solidaire microdonations model. As was mentioned above, there were two staff handovers in the course of the pilot, and this had a significant impact on progress. Repowering London also commented on the very large time investment that funding diversification requires.

Repowering London implemented three further funding diversification activities in CEES, with varying degrees of success and – as a direct result of CEES – is exploring further plans for funding work on energy poverty in the future:

1. Local retailers: microdonations and donations
2. Corporate Social Responsibility donations
3. Service contracts

In addition, Repowering London began to explore the potential of a retrofit donations scheme.

These activities are discussed below.

Local retailers: microdonations and donations

Process

Since Repowering London does not have energy customers, a microdonations scheme could not be implemented following the Energie Solidaire model. Therefore, it was necessary to investigate other potential microdonations and donations models. To do this, Repowering London engaged with local high street retailers to investigate the possibilities of setting up microdonation schemes and securing direct donations from these businesses.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

Challenges and outcomes

This work was very challenging and ultimately unsuccessful. Echoing the experiences of other partners, the following challenges were experienced:

1. In some cases, where retailers were part of a regional or national chain, Repowering London encountered a mismatch between these regional/national scopes and the much more local work of Repowering London. Larger national retailers offer charitable funding through grant funding-type schemes, and at least one potential new grant funding opportunity was identified and applied for during this scoping process.
2. More generally, it was considered inappropriate to set up a microdonations scheme in the context of the 'energy crisis' and broader 'cost of living crisis'. This difficult context also made it very difficult for smaller retailers who were struggling with their own energy bills to consider direct donations.
3. As noted in other contexts, this was a time-consuming activity.

Corporate donations

Process

Prior to the CEES project, Repowering London had worked with two different consultants at different times on fundraising through corporate donations. Despite initial optimism, this earlier work proved fruitless. Within the context of CEES, Repowering London returned to this task, carefully selecting and contacting larger local businesses that were considered likely to operate a Corporate Social Responsibility (CSR) fund.

Challenges and outcomes

Although this was a further time-consuming activity, this work was unproductive. Repowering London was initially successful in securing an offer of a €5,750 donation from a local management consultancy that specialises in energy. However, it transpired that the organisation was not able to make this donation because Repowering London is not a registered charity (it is a not-for-profit company). This might have been because the organisation would not be able to claim tax relief on a donation to an organisation that is not a registered charity. This is in fact a challenge that was faced by Enercoop when it first attempted to set up a microdonations scheme for its customers. In response to this challenge, Enercoop set up Les Amis de Enercoop as a charity, to receive the donations.

Repowering London also reported other instances where a lot of time was invested, progress was made and it seemed that CSR-related donations would be forthcoming, only for the company to 'go quiet' or withdraw. Repowering London discussed an instance of this, relating to the Just Transition fund run by a local built environment consultancy business. This comment is worth reporting at length because it highlights the challenges of this work:

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'They reached out to us saying, "We want to know about what you're doing", and we thought this seems like a great fit. I had several meetings with them in close succession, a meeting with the person who initially reached out, a meeting where I pitched what we do to the directors, and then another pitch to some other board members. Everything sounds great, they're very positive, it's exactly the sort of thing they want to be funding, and then there's radio silence. And then I nudged them some months on, saying, "Here's something recent from what we've been doing, do you still want to get in touch?" And then get a positive response, like, "Yes, be back with you soon, just figuring things out." Anyway, nudged them again, nothing. And they just got in touch at the end of last year and it had been quite a long time, I don't know, many months, and so I'd assumed it had disappeared, and then the director got in touch end of last year out of the blue saying, "Okay, we're ready now with this just transition fund, do you want to have a chat?" Went back to him with times to have a chat, and now nothing.'

Service contracts

Process and challenge

As the CEES project progressed, Repowering London also turned its attention to seeking local service contracts for the provision of local energy poverty services. In part, this was inspired by ALIenergy's success in this area earlier in the CEES project. As with the corporate donations, this work relied on very targeted relationship building. Work in this area focused on energy network operators and local authorities. As with much of this work, Repowering London reported that this was very time-consuming.

Outcomes

In early 2024, Repowering London was successful in securing a service contract with SGN (a UK gas network operator, as opposed to a retail supplier) with a value of €237,554. The project is called Warm and Well Networks. The contract runs from May 2024 to March 2026 (with particular focus on the 2024-2025 and 2025-2026 winters), will operate in south London, and will consist of:

- Continuation of the energy poverty roadshow approach that was implemented in CEES.
- Training of frontline health and social care workers on key elements of energy advice.
- Provision of free boiler assessments and referrals to another grant-funded programme for free assessments on insulation, renewables and other retrofit measures.

Exploring a retrofit donations scheme

Repowering London attended the third CEES Open Day at Les 7 Vents, in Normandy, France, in March 2024. At this meeting, Repowering London was inspired by conversations about a French project that offers retrofit customers the opportunity to pay a donation (also referred to as a 'solidarity rate') to support retrofit projects and other work for people in energy poverty. As the result of these conversations, Repowering London is now exploring a similar project in south London.

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10.4. Alleviate: energy roadshow process (EO4.1)

Process

Between December 2023 and March 2024, Repowering London implemented a programme of 10 public energy poverty roadshow events at locations around Brixton in inner south London. The roadshow events allowed people to 'drop-in' to a Repowering London table at set times in community centres, health centres and leisure centres. In some cases, the event was solely a Repowering London event, whereas in others, Repowering London was one of a number of organisations that had a table. The energy roadshow events were promoted to the community through social media, posters, WhatsApp groups, and flyers and word of mouth in existing community networks. The promotional materials used the heading: *Beat the cold and boss your bills* (see below). As shown in the following photos, the events took the form of informal conversations around a table. This format meant that it was not possible to provide in-depth advice at the events.

The Beat the Cold events had the following objectives:

1. To distribute draughtproofing kits.
2. To sign up people to the UK Priority Services Register (PSR). The UK PRS is a statutory free service that enables people to register themselves as vulnerable with their energy supplier. People who are registered with the PSR are eligible for a range of additional services and are prioritised in emergencies.
3. To offer tailored energy advice, to the extent possible in a drop-in context.

Repowering London Beat the Cold roadshow event, 24-02-24, Roupell Park Community Centre.

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Repowering London energy poverty roadshow poster.

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Repowering London Beat the Cold roadshow event, 08-02-24, Moorlands Pantry.

Outcomes

Between December 2023 and March 2024, Repowering London organised ten Beat the Cold roadshow events at locations around Brixton. As shown in Table 9.2, Repowering London was able to have conversations with 139 individuals at these events. Unfortunately, it was not possible to record all of the activities at all of the events. However, it is possible to say that Repowering London distributed a total of 87 or more draughtproofing kits and signed up 5 or more people to the PSR.

Experiences and impacts

Due to the nature and timing of the Beat the Cold roadshow events, it was not possible to formally evaluate participant experiences and impacts of the roadshow events. This was for several reasons:

- The roadshow events took place after the cut-off point for completing 'baseline' surveys (November 2023).
- Even if this had not been the case, these were not the sort of events and engagements at which contact details could be readily collected to enable completion of the 'follow-up' survey.
- Since the events offered a drop-in form of engagement, the engagements between the Repowering London team and the participants were sometimes relatively quick. This meant that there was too little time to complete the 'engagement' survey.

The CEES evaluators offered ideas for very basic evaluation of households' experiences at the Beat the Cold events. However, due to the pressure on human resources at the events, it was not possible for Repowering London to implement these. The evaluators have encouraged Repowering to think further about evaluation for further roadshow events within the new SGN service contract.

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Date	Venue (*event)*	Numbers of…		
		Households spoken to	**Draught-proofing kits distributed**	**PSR signups**
07/12/23	Moorlands Pantry *(food pantry, Healthy Living Platform)*	20	17	Not recorded
15/12/23	West Norwood Leisure Centre *(following playgroup for families with autistic children, A2ndvoice CIC)*	9	9	3
16/12/23	St Martins Community Centre (*Winter Fair event at housing estate)*	19	23	2
21/12/23	WLM St Luke's *(Community Centre)*	0	0	0
08/02/24	Moorlands Pantry	21	Not recorded	
16/02/24	West Norwood Leisure Centre	6	11	0
24/02/24	Roupell Park Community Centre (*Local Community Energy Expo event)*	5	5	Not recorded
29/02/24	Moorlands Pantry	20	10	
14/03/24	Akerman Centre (*Loughborough Junction Action Group's Social Prescribing Day*)	5	5	
22/03/24	Marcus Lipton Centre (*Community Centre – Warm Welcome Session with RMUK Well-being*)	25	7	
Totals		**139**	**87 or more**	**5 or more**

Table 9.2. Details of the Repowering London energy poverty roadshow events.

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10.5. Impacts for Repowering London: the legacy of the CEES pilot (EO6)

The work that is evaluated in this report has produced the following impacts and legacies for Repowering London.

Fund

1. At the start of the CEES project, Repowering London was largely reliant on one source of funding: competitive grants. Historically, this had made it challenging for Repowering London to cover core costs and to maintain staffing levels over time. During the CEES project, Repowering London has developed a range of knowledge, skills and processes to support a more flexible portfolio of funding sources. The large €237,554 SGN service contract that it has secured is evidence of real success in this area.

2. With respect to corporate donations, although the work in CEES was not successful, Repowering London has built its knowledge and resources for working on this task and will continue this work beyond CEES.

3. Repowering London is exploring further work on public donations. This work will draw on the learning of other CEES partners during the project, as encapsulated in the CEES Energy Solidarity Toolkit.

Alleviate

1. As a result of the funding from SGN, a key legacy of the CEES project is that Repowering London will be continuing to implement and develop its energy poverty roadshow approach. In addition, they will be able to train frontline workers in the health and social care sectors to provide energy advice. Finally, Repowering London will offer boiler assessments and referrals to another grant-funded programme for free retrofit advice.

2. In a further development, during the course of the CEES project, Repowering London submitted an application to the UK regulator for a license to become an energy supplier. This is a lengthy process, so this license will not be granted within the CEES project period. A key element of Repowering London's planned offer, as a not-for-profit retail energy supplier will be to provide energy at 'well below the market rate'. Repowering London reported that experiences in the CEES project have deepened this commitment.

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10.6. Key learning from the Repowering London pilot

Fund

1. While micro-donations following the Energie Solidaire model are appropriate for energy communities that have their own customers, this is a very challenging approach for organisations that do not have customers.

2. When an organisation is not a registered charity, this can negatively impact the potential for corporate donations, because these will not be tax deductible.

3. Although these are time-consuming undertakings, programmes to support public donations, corporate donations and service contracts all have the potential to provide valuable income. Donations can be particularly useful because the income can be flexibly spent across different activities, unlike grant funding.

Alleviate

1. The relative ease with which Repowering London implemented the energy roadshow illustrates the value of previous experience. Energy communities that are new to such work will need more time to develop this level of skill and experience

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11. Repowering London: Home Monitoring for Well-being

11.1. Introduction (EO1)

Background

In the early stages of its CEES pilot project, Repowering London was focused on its work on funding, and it was not clear if Repowering London would be able to implement an Alleviate mechanism as part of its CEES pilot. In addition, the evaluators were keen to use the evaluation materials to evaluate as many approaches as possible. For these reasons, Repowering London and the evaluators agreed that it would be productive to use the CEES evaluation methods and materials to evaluate another of its projects, called Home Monitoring for Well-being, which had objectives relating to energy poverty alleviation and improving indoor air quality. The Home Monitoring for Well-being project was funded by Impact on Urban Health (part of Guy's and St Thomas' NHS Foundation Trust). The technical aspects of the project were delivered in collaboration with researchers at London South Bank University. This project and its evaluation have yielded valuable learning for the CEES project. The evaluators are grateful to the Repowering London team for supporting this extra evaluation work.

The Home Monitoring for Well-being project was framed by Repowering London and the funders as an 'innovation' project, in which objectives of both learning and impact were foregrounded. The project set out to recruit up to 20 households from two inner London social housing estates, and to install sensors in the homes to monitor a range of indicators of energy poverty, (such as electricity and gas consumption, indoor temperature and humidity) as well as indoor air quality (carbon dioxide, fine particulate matter (PM2.5), and total volatile organic compounds (TVOC)). Tailored advice was then to be provided on the basis of the monitoring data, as well as products or appliances up the value of €1,150 per household, to alleviate energy poverty or poor indoor air quality. This could include, for

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example, various cooking appliances, or anti-allergy bedding. This would all be underpinned by in-depth and ongoing household engagement.

Mechanisms

The evaluation report addresses the following mechanisms:

1. **Identify:** Recruiting up to 20 households from two urban social housing estates to join the project.

2. **Alleviate:** Via ongoing household engagement, households were provided with: feedback about energy consumption, internal temperature, internal humidity and other variables that affect health and well-being; tailored advice on the basis of the feedback; and up to €1,150 worth of measures.

Evaluation summary

Identify

Recruitment of households from the two housing estates was carried out through door-to-door leafleting, and through referrals of people who might be on low incomes or are vulnerable in other ways, from the Resident Management Organisations[37] (RMOs) on both estates. Repowering London noted that recruitment was more challenging than had been expected, perhaps due to householder concerns about the commitment that was required to participate in the project, or about allowing people into their homes, which might be in a poor state. Repowering London also noted that recruitment was more straightforward on one of the estates in which the team observed higher levels of 'social capital' (in terms of relationships between the RMO and the residents and between the residents themselves). The team also reported that the low-rise nature of the buildings on this estate supported this social capital.

Although eligibility criteria were developed, Repowering London reported that the challenges with recruitment meant that it was not appropriate to rigorously apply these. Initial contact and assessments were undertaken with 33 households. However, some participants withdrew for various reasons and at various stages of the scheme, and 16 households remained engaged to the end of the project.

[37] In the UK, a Resident Management Organisation (or Tenant Management Organisation) is a collective endeavour where social housing tenants, leaseholders, and freeholders set up a legal entity and take responsibility for managing their estate and homes. RMOs are funded by, and work in partnership with, social landlords.

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Alleviate

The Home Monitoring for Well-being project had 16 participants. Although Repowering London had a generous budget to cover these activities, it is important to note that the monitoring kits, the in-depth engagement and the €1,150 of products per household were relatively costly to implement. All of these activities were time-consuming and setting up the monitoring kits was delayed due to technical problems. However, Repowering London reported that the monitoring approach enabled the provision of very tailored recommendations for energy saving and improving indoor air quality. Further, Repowering London observed that the in-depth engagement was important for several reasons: it built high levels of trust in most cases; it kept householders engaged during delays with project delivery; it allowed building up in-depth knowledge of the householders' properties and circumstances; and it was highly valued by some participants who were socially isolated.

The evaluation data shows that participating households' experiences of the Home Monitoring for Well-being were largely positive, although some participants did become less engaged at some points in the project. There is evidence that participation in the project had a positive impact on households' ability to pay their energy bills and on a variety of aspects of energy know-how and understanding.

Legacy

On the basis of the learning that took place in the Home Monitoring for Well-being project, Repowering London is now planning more ambitious innovation projects in which retrofit of the homes of people in energy poverty is informed by monitoring and feedback, supported through in-depth engagement. It is developing revised recruitment strategies for future projects and is considering approaches such as attending clubs, schemes and nurseries, and partnering with community care and nursing services, in the study area.

Timings

The timings of the Home Monitoring for Well-being project are shown in Table 10.1.

	2022			2023				2024	
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2
Identify: recruiting households									
Alleviate: implementation of monitoring, feedback, measures and engagement									

Table 10.1. Timescales for the Repowering London pilot project.

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Organisational structure

The Home Monitoring for Well-being project was managed and delivered by a Project Manager in Repowering London, with support from the Programme Manager who worked on the CEES pilot project. Both of these managers changed during the Home Monitoring for Well-being project and this is likely to have impacted on project delivery.

11.2. Identify (EO3)

Process

Repowering London's objective was to recruit 20 households to the Home Monitoring for Well-being project. Recruitment began on an estate (which we will call Estate 1) in inner city south London in early 2022. Estate 1 was selected because Repowering London had a pre-existing relationship with the Resident Management Organisation (RMO) for the estate. However, recruitment was challenging, for reasons that are discussed below. Therefore, in the summer of 2022, Repowering London decided to begin recruitment in a second estate (Estate 2) in the same area; again, Repowering London had a pre-existing relationship with the RMO on the estate.

In both areas, recruitment was carried out in a variety of ways. Some were universal, for instance leaflet drops were undertaken across the estates. Other approaches were more selective, for instance the RMOs recommended households that might benefit from the project. In addition, the leaflets mentioned a focus on households with people aged under 16 or over 65. However, these were not strict eligibility criteria and all households on the estates that applied were considered for the project.

Challenges

Repowering London noted that recruitment was more straightforward in Estate 2 than it had been in Estate 1. Three possible interlinked reasons for this were considered. Firstly, the team noted greater 'social capital' in Estate 2 than in Estate 1, reflected in stronger relationships between residents themselves and between residents and the RMO. The RMO in Estate 2 was also much more active than in Estate 1. Additionally, Estate 2 is more modern and low-rise, while Estate 1 is older and high-rise. Repowering London commented:

> *'When you walk through Estate 1 you don't necessarily bump into people in the way that you would at Estate 2. It was just a very different experience'.*

Across both estates, Repowering London noted the following challenges with recruitment:

1. Some residents may have been put off joining the project due to shame or stigma relating to the poor conditions (e.g damp and mould) in which they were living. This is concerning because it suggests that the people who most need support might be less likely to access it.

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2. It also appears likely that some households were put off joining the project due to the level of commitment that was required to have the monitoring equipment installed and the longevity of the commitment. This was particularly the case for those with health conditions and other vulnerabilities. This again raises the concern that those most in need might be less likely to receive support.
3. Some householders were concerned about sharing personal information with the Repowering London team.
4. Finally, some residents had security concerns and were unwilling to allow people into their homes. In two of these cases, the security concerns were raised by the adult children of the prospective participants.

Take part in the Home Monitoring for Wellbeing research project to

REPOWERING LONDON
Creating Local Energy

- Save money on your energy bills.
- Reduce air pollution in your home.
- Receive money for your time.

Register your interest THIS WEEK – places going fast

If you **live on Roupell Park Estate** and **at least one person living in your home** is:

- Under 13 years old **OR** Over 65 years old
- **OR** if any person has an existing heart or lung health condition (e.g. asthma)*

you could benefit from:

- A free monitoring and advice service for air quality and energy use to help improve your health and reduce your energy bills;
- Up to **£1000 budget** per household for Repowering to install helpful equipment to improve air quality and increase energy efficiency in your home;
- **£100 for participating** in the project and **£40 per (optional) feedback session**

How to register your interest

Whatsapp, Text or Call Irma on 07513 808963
Email: irma.allen@repowering.org.uk
OR **fill out the online form here:** https://tinyurl.com/4k3exjxt
Website: www.repowering.org.uk/home-monitoring-for-wellbeing

We will contact you with more information and to see if you can take part.

*If you do not meet this criteria but are interested, get in touch to find out if you could still be involved.

Supported by
Impact on Urban Health

The Home Monitoring for Wellbeing project is run by Repowering London, a not-for-profit organisation based in Brixton. It is funded by Impact on Urban Health: part of Guy's and St Thomas' NHS Foundation Trust.

Home Monitoring for Well-being recruitment leaflet.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

Outcomes

Recruitment continued through the latter half of 2022. By the end of this period, 33 households had been recruited and had had an initial assessment carried out. However, in the first few months of 2023, half of these households either withdrew from the project or were not considered suitable on the basis of the assessment, leaving a total of 16 participating households (11 in Estate 1 and 5 in Estate 2). Reasons for withdrawal included some of those noted above. In addition, some working households found it difficult to set up the appointments to install the monitoring equipment due to work commitments.

Given that all households on the estates were eligible to join the Home Monitoring for Well-being project, it is important to examine whether this approach generated participation by people in energy poverty. Table 10.2 shows that of the 14 households that completed the baseline household survey, 65% (9) confirmed that they had difficulty paying their energy bills, with a further 14% (2) respondents giving a neutral answer. It is important to note that affording energy bills is just one indicator of energy poverty. In addition, participants might have been reluctant to reveal the extent of their struggles. Nonetheless, this suggests that the approach to recruitment that was employed by Repowering London was quite successful in targeting people who are likely to be in energy poverty. Of course, this could also be a reflection of relatively high levels of energy poverty across the two estates.

	Number (%)
1 - No difficulty	1 (7%)
2	2 (14%)
3	2 (14%)
4	4 (29%)
5 - Great difficulty	5 (36%)

Table 10.2. Baseline responses to the question, ‘Thinking about the past year, how much difficulty have you had with affording your energy bills?’ (n = 14).

The demographic characteristics of the participants in the Home Monitoring for Well-being project are shown in Table 10.3.

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	Number of households (%)
Number of people in household	
1	7 (50%)
4	5 (36%)
5	2 (14%)
Number of children (aged 17 or less) in household	
0	7 (50%)
1 to 2	2 (14%)
3	5 (36%)
Number of older people (aged 65 and above) in household	
0	10 (71%)
1	4 (29%)
One or more person with a disability or long-term illness	
Yes	11 (79%)
No	3 (21%)
One or more person in paid employment	
Yes	3 (21%)
No	11 (79%)
One or more adult male in the household	
Yes	5 (56%)
No	9 (64%)
Type of property	
Purpose built flat or apartment	14 (100%)
Tenure	
Owner occupier	1 (7%)
Social tenant	13 (93%)

Table 10.3. Demographic characteristics of households that completed the 'baseline' survey in the Home Monitoring for Well-being programme (n = 14).

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11.3. Alleviate (EO4)

Introduction

The Alleviate mechanism within the Home Monitoring for Well-being project had three key stages:

1. Installation of monitoring devices and data transmission systems.
2. Monitoring data collection and the provision of tailored feedback and advice to the householders.
3. Selection and provision of appliances and measures to the value of €1,150.

All of these stages were underpinned and supported by ongoing in-depth engagement with the participating households. This consisted of numerous and often lengthy home visits with each participating household and was a far more extensive form of engagement than was implemented in the other CEES pilot projects. The processes, challenges and outcomes in the three stages and in the in-depth engagement are described in the sections below.

Installation of the monitoring devices

Process

This stage in the process involved the team from London South Bank University installing two or more different monitoring devices (including devices to capture energy consumption, indoor temperature, and measures of indoor air quality (carbon dioxide, fine particulate matter (PM2.5) and total volatile organic compounds (TVOC) and data transmission systems (including 4G internet routers) in each property and setting up systems to receive and store data remotely. In addition to the Repowering London technical installers, the Project Manger also attended the installations at the participants' properties.

Challenges

- Since it was in the Home Monitoring for Well-being budget, the cost of the technology was not a challenge. However, the cost of the technology in the project was significant and it would therefore be very challenging to replicate this in the absence of dedicated funding.
- Sourcing of the monitoring devices and setting up of the monitoring devices/data transmission systems in participants' home and at London South Bank University took a lot longer than had been expected and took up a lot of time for both the university technical team and the Repowering London team.
- Installation visits to households were challenging to set up because they lasted several hours and needed to be attended by the Repowering London technical team and Project Manager, and the householder.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

Outcomes

The technology installation, testing and troubleshooting aspects of the Home Monitoring for Well-being project were successfully completed by May 2023 for the 16 households. As discussed above, this was later than had been planned.

Monitoring and tailored feedback and advice

Process

This involved liaison between the London South Bank University and Repowering London teams to represent a lot of complicated data and technical information in a report format that would be accessible, understood and useful for the householders. This process was supported by a co-design workshop in which options were shared with a group of participating householders and the householders described what would be helpful for them. The reports were designed and prepared to a high quality as a statement of Repowering London's commitment to the participants. The reports were printed due to the challenges of digital communications with some of the participants. Once the reports had been produced, this involved further engagement by Repowering London with each individual household to go through the report face-to-face. The reports themselves contained charts showing the monitoring data and tailored advice in the form of so-called 'easy wins'. This tailored advice was produced on the basis of the monitoring data and other knowledge about the household. Four rounds of reports were prepared and discussed with householders in June 2023, October 2023, February 2024 and June 2024.

Challenges

Delays with the early stages of the project meant that, in advance of winter 2022, Repowering London needed to provide advice that was not based on monitoring data. This meant that this initial advice was not as tailored as had been hoped. Despite the value of the co-design workshop, developing and finalising the format of the various data in the feedback reports was challenging and time-consuming. Further, with respect to some of the variables that were being monitored, there were challenges for the London South Bank University team in terms of understanding and converting certain units of measurement and in deciding which guidelines to use to identify areas of concern[38]. Finally, the round of home visits to go through the report with the participants was very time-consuming. This was in part because the level of already-existing knowledge among the participants was typically relatively low (particularly with respect to the indoor air quality aspects of the project).

[38] As an example of the complexity of guidelines, the British Gas website contains the following advice with respect to ideal internal temperatures in winter, 'The Energy Saving Trust recommends heating your home to between 18 to 21 degrees celsius during winter. And The World Health Organisation (WHO) suggests 18 degrees is the ideal temperature for healthy and well-dressed people. Both agree this is also the ideal temperature for sleeping. In practice, you should be heating your home based on the age and health of your household. The WHO suggests 20 degrees as the ideal temperature for the old, young or unwell. For healthy adults, you should heat your home to a room temperature that feels comfortable.'

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Outcomes

This phase of the Home Monitoring for Well-being project was completed in early 2024. With respect to levels of engagement with the reports, Repowering London commented that this was mixed:

> *'I think some of the participants have read the report and I think it has improved their understanding of air quality and energy poverty. Some of them have emailed with questions and I've had some really nice comments about it. I'm pretty sure some of them have not read it, though it still served its purpose as an engagement tool and a connection tool, which is important.'*

Selection and provision of appliances and measures

Process

As noted earlier, each participating household was allocated a budget of €1,150 to spend on appliances and products. This phase of the Home Monitoring for Well-being project involved the following steps:

1. With the support of the London South Bank University team, Repowering London produced a well-designed[39] and comprehensive 36-page catalogue of potential appliances and products available to household (see front cover below). The 22 categories of products and appliances, from various types of cooking appliance to anti-allergen bedding, focused on improving indoor air quality and some of them were also energy efficient.
2. Repowering London shared and reviewed this with households and assisted households to make purchasing decisions, some at a workshop and some in home visits. This took place from November 2023. In practice, the appliances and products selected tended to focus more on improving indoor air quality than energy poverty.
3. Repowering London ordered the appliances and products (using Amazon for Business). Items were ordered over the winter of 2023-2024.

Challenges

A key challenge in this phase of the project was that preparing the catalogue of products, reviewing the catalogue and making purchasing decisions with all of the participants were all very time-consuming. Indeed, Repowering London noted that this was the element of the project that required the most work with participants, including multiple engagements.

Another challenge was that some of the preferred interventions required work within residents' properties. For instance, in several properties, the monitoring systems determined that old and

[39] Designing the catalogue to a high standard was seen as important in terms of demonstrating to participants how much they were valued by Repowering London.

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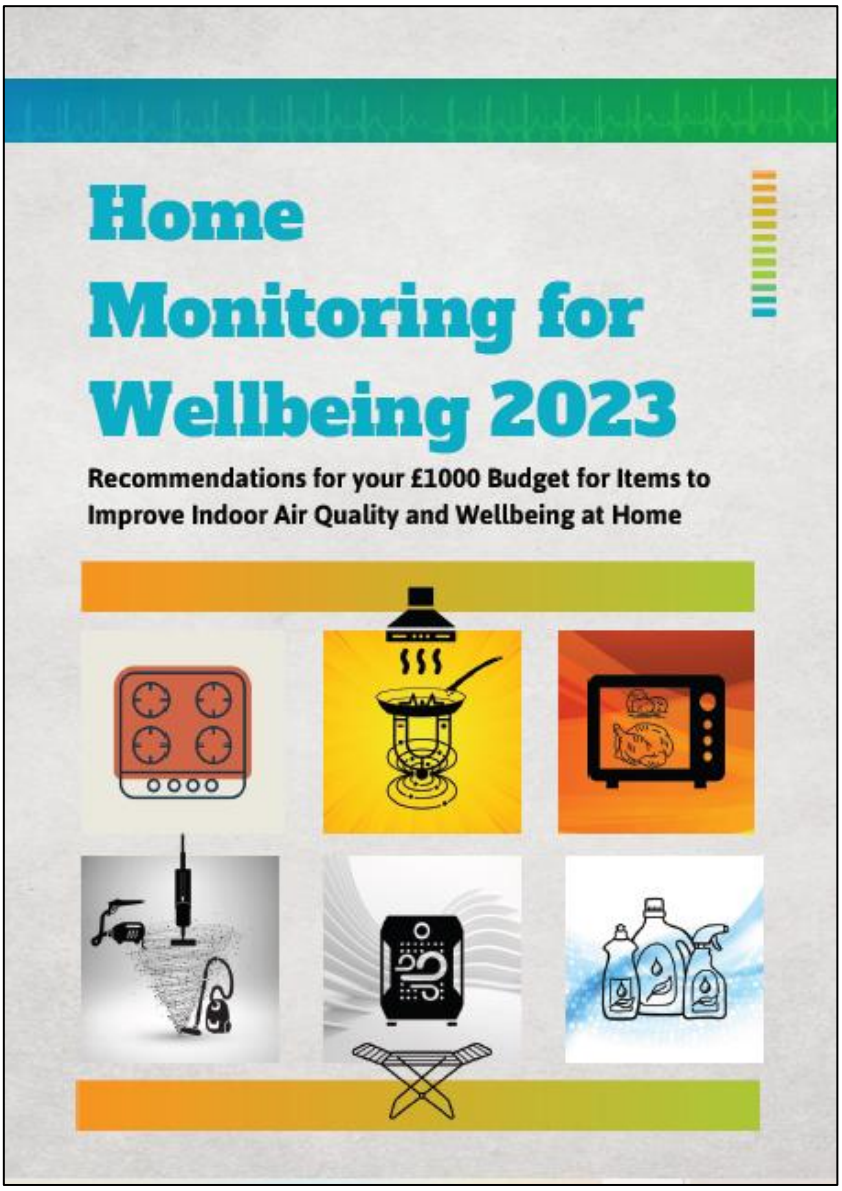
inefficient gas cookers were a source of potentially higher energy costs and of damaging indoor pollutants. In response to this, these households wished to replace their old gas cookers with new and efficient electric ovens with induction hobs. This required new electrical wiring and some work to kitchen units.

It was also often challenging to ensure that the householder would be available at home to receive the delivery from Amazon for Business. In addition, due to the financial approvals needed, the ordering process needed a project team member and a Repowering London director to be both present, which was sometimes difficult to arrange.



The front cover of the 36-page catalogue of appliances and products.

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Outcomes

By April 2024, items had been ordered and delivered to almost all of the participants. Repowering London provided several examples of the positive impacts of this work. The extent to which the appropriate solutions are dependent on the specific context within the household is notable:

> *'Two participants, who receive hot water and heating via a communal system, have terminated their gas supply, which they used for cooking only. Instead, they have had new electric induction hobs installed and, in one case, an electric oven, the other participant already had an electric oven. This involved both participants switching to Octopus Energy as this supplier will cap a gas supply used for cooking only and remove the gas meter free of charge. Also Octopus generally provides significantly better customer service than other suppliers. These participants will now be permanently relieved of having to pay a daily standing charge for gas and have removed a significant source of indoor air pollution i.e. gas cooking appliances. In practical terms, these participants had to factor the costs of electrical installation and some modifications of their kitchen space into the budget.*
>
> *'One participant who resides on the estate which is not supplied by a communal heat network (which leaves no option to terminate the retail gas supply) has elected to switch his aged freestanding electric cooker for an induction hob and built-in oven. This should reduce running costs in line with the superior efficiency ratings of the new items. Two other participants who were both using freestanding electrical cooking appliances have purchased large oven-style air fryers which can pretty much be used in place of conventional ovens and, again, this will reduce running costs.'*
>
> *'Two participants with larger families, who were using conventional tumble dryers, will reduce their electricity costs having chosen air pump tumble dryers. Using tumble dryers rather than having laundry drying indoors for days on end is also recommended for better air quality.'*

Repowering London highlighted the replacement of appliances as an approach to energy efficiency that can be a productive and less costly alternative to installing new heating systems:

> *'Cooking appliances and other appliances is a relatively underserved area of focus for retrofit and energy efficiency projects, but it's a much less costly and complex intervention than installing low carbon alternatives to gas-fired central heating.'*

Ongoing and in-depth household engagement

Process

The in-depth engagement focused on regular time spent in the participants' homes to implement one or more aspect of the processes described above, backed up by emails and telephone calls (as needed), and participation in the co-creation and catalogue workshops in some cases. The home visits lasted for

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up to two hours and often involved discussion of things that were not strictly related to the Home Monitoring for Well-being project.

Challenges

The cost of the ongoing and in-depth engagement was considerable in terms of human resources. This was not a direct challenge for Repowering London, in the Home Monitoring for Well-being project, because the time was included in the grant-funded budget. However, thinking more generally, Repowering London commented on the ambiguous role of this level of engagement: noting that this is not always an efficient use of time, that it was too much for some of the participants, but also that the in-depth engagement is important because it builds relationships with householders. This ambiguity is shown in the following comments by Repowering London:

> *'I've definitely done home visits that haven't been efficient, I've probably been there for an hour and a half or something, 'cos you end up chatting to someone about their kids, but it's important because it builds up those long-term connections'.*

> *One woman was 'At one stage very disengaged, the project was just an unwelcome intrusion into her life. She made that clear. However, this participant's engagement totally turned around in the last few months of the project'.*

Repowering London also commented on the psychological burden that the delivery team experienced in the course of working in-depth with people who are sometimes in desperate circumstances:

> *'I think another learning about doing this sort of level of intensive engagement in the context we're working in, especially with statutory services being overburdened, is that I don't think it is work where you can have one project manager working in isolation. I think in terms of resourcing, that it is essential that there be some kind of team infrastructure to support that.'*

Outcomes

As discussed above, in-depth engagement does not work for everyone. Repowering London summed it up in this way:

> *'I think on the whole most of them felt well disposed towards us, but I also felt that there was some degree of fatigue with everything'.*

That said, Repowering London was very confident of the benefits of in-depth engagement for the Home Monitoring for Well-being project. The benefits took a number of forms.

- The Repowering London team often returned to the importance of in-depth engagement for building trust with householders, commenting, '*The engagement is what works building trust.'*

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- They also noted that in-depth and ongoing engagement leads to greater knowledge about the household and the property. This is significant because it means that more appropriate and impactful support can be provided. This issue has two elements. First, Repowering London commented that, as engagement deepened and trust was built, several participants were willing to reveal more about their situations (see the quote below). Second, in-depth engagement enabled the delivery team to learn more about the household through observation:

'It's only through a number of months of being in contact with some of the participants that it's transpired that they are facing quite serious issues with their energy provider. At first our conversations might have been quite light touch, or more about just cost of energy in general, then after a few conversations or more it transpires that they're struggling with a massive bill and there's a bailiff coming. These kinds of things are much harder to talk about perhaps up front. There's another participant, for example, who hasn't had any heating or hot water for three years, and he's an elderly and vulnerable person, and that didn't become clear for quite a few months. He said that everything's alright and he was fine, but as it turns out he's not. Obviously he doesn't struggle with his bills, he doesn't have any heating or hot water!! So that's stuff that we have been working with some of the participants to resolve.'

- Repowering London also reported that the relationships that had been built through engagement were especially valuable when the project encountered challenges, such as the issues and delays with the installation of the monitoring systems that were discussed earlier. The team described how these positive relationships kept people engaged with the project despite the challenges:

'We've had all these technical challenges, as you'd expect on an innovation project. But the project manager on the project has been offering one-to-one energy advice to some of the participants for quite a while and has been really successful in keeping people engaged with revisits that we've had to do to get some of the equipment up and running, and sometimes repeated revisits for what probably seems like the same set of actions, and other things that could really lead to people being disengaged. But she's done a really good job of keeping them engaged because she's built-up relationships over time.'

- Finally, Repowering London was keen to emphasise the ways in which their in-depth engagement with households provided social contact for some of the more isolated participants. As illustrated in the comment below, the delivery team provided this social contact themselves and facilitated social contact between participants:

'She's so happy to have company. She cries when I leave, you know. She's really lonely. And then her downstairs neighbour, I kind of introduced them, and they have some contact. The downstairs neighbour is also recently bereaved.'

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11.4. Alleviate: short term household experiences and impacts (EO4.2)

Short term household experiences

Short term household experiences were examined through three questions in the 'engagement' survey. In the Home Monitoring for Well-being project, this data was collected at the end of one of the home visits at which the feedback and advice was provided to householders. The 'engagement' survey was completed by nine of the sixteen participating households. As shown in Table 10.4, with agreement levels with the positive statement at 89%-100%, the responses indicate that household satisfaction was very high.

	Agree	Neither	Disagree
The home visit was well-run	9 (100%)	0 (0%)	0 (0%)
The home visit suited my needs	8 (89%)	0 (0%)	1 (11%)
The home visit was conducted in a respectful way	9 (100%)	0 (0%)	0 (0%)

Table 10.4. Household experiences of the Home Monitoring for Well-being programme events (n = 9).

Turning to the qualitative data that was collected in the 'engagement' survey, several participants commented on the value and clarity of the documents that Repowering London produced (although one respondent was more ambivalent about this and suggested that a workshop environment might have been more productive for discussion of the feedback). In addition, several respondents identified one or more pieces of advice as being particularly helpful.

Short term impacts for households

Short term impacts for households were examined through three further questions in the same 'engagement' survey. Table 10.5 shows that satisfaction levels relating to learning, confidence and intent were also high at 78%.

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	Agree	Neither	Disagree
Learned practical information and skills to help reduce my energy consumption and costs.	7 (78%)	0 (0%)	2 (22%)
Feel more confident than before that can reduce energy consumption and costs.	7 (78%)	0 (0%)	2 (22%)
Intend to take action to reduce my energy consumption and costs.	7 (78%)	1 (11%)	1 (11%)

Table 10.5. Immediate impacts on households in the Home Monitoring for Well-being programme (n = 9).

11.5. Longer term impacts on households (EO4.2)

Longer term experiences

The Home Monitoring for Well-being 'follow-up' survey contained four retrospective questions about longer term experiences of the programme. This was completed by 14 participating households in March 2024, shortly after the third round of feedback and the provision of the products and appliances. The findings from this survey are shown in Table 10.6. These results provide further evidence that the Home Monitoring for Well-being programme was successful in terms of its process. One year after the beginning of their participation, households in the programme clearly feel that the programme was well-run (86%), that the energy advisors listened and were respectful (86%) and that the programme was adaptable to suit their needs (79%). Finally, 86% of participants agreed that they would recommend the programme to others.

	Agree	Neither	Disagree
The programme was well run.	12 (86%)	2 (14%)	0 (0%)
I felt listened to and respected by the people who were delivering the programme.	12 (86%)	2 (14%)	0 (0%)
The programme was adaptable to suit my needs.	11 (79%)	2 (14%)	1 (7%)
I would recommend the programme to other people who struggle to pay their energy bills.	12 (86%)	2 (14%)	0 (0%)

Table 10.6. Longer-term household experiences of the Home Monitoring for Well-being programme (n = 14).

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A number of qualitative comments were added to participants' 'follow up' survey responses and reported directly to Repowering London by participants. These comments were all positive and are shown below:

'Thank you for allowing me to participate. Overall, my experiences has been positive'.
'I am proud to be involved and I let everyone know this'
'Being part of the project has made me less worried about energy costs.'
'Wonderful people involved in the project, their care for us is admirable.'
'It's been a nice experience meeting the team and working with them. I've enjoyed getting to know [name of project manager]. She's very helpful in sharing tips.'
'Thank you for being respectful, generous and considerate throughout'.
'I feel blessed to come across Repowering, always welcome to my home, lovely people'.

Longer term changes: comparing the 'baseline' and 'follow up' surveys

Introduction

Longer term impacts of the pilot projects were examined by comparing each household's responses to a 'baseline' survey to their responses to an identical 'follow-up' survey. In the Home Monitoring for Well-being project, the 'baseline' survey was conducted in a home visit shortly after recruitment in December 2022/January 2023 and the 'follow-up' survey was conducted in a home visit shortly after the third round of feedback and the provision of the products and appliances (March 2024). Once the data had been cleaned and integrated, 12 matched pairs of households were available for analysis (from the 16 participating households). Differences between the baseline survey data and the follow-up survey data were examined using the Related-samples Wilcoxon signed-rank test, with a confidence level of 90% required to establish significant changes. As discussed earlier, 90% was used due to the relatively low sample size.

The results of this analysis are examined in the tables below. These tables show means of all of the items from the baseline and follow-up surveys that relate to energy poverty. Items where a statistically significant change was identified, with a 90% level of confidence, are highlighted in green. It should be noted that 12 participants is a very small sample, and this reduces the likelihood of finding any statistically significant change.

Paying energy bills

As indicated in Table 10.7, the Home Monitoring for Well-being analysis shows a statistically significant (at 90%) *decrease* in the mean for difficulty affording energy bills between the baseline survey and the follow-up survey. Even though changes cannot confidently be fully attributed to the programme, this is a positive result that indicates that households reported *less difficulty* paying their energy bills one year after the beginning of their engagements with the programme than they did at that earlier stage.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Difficulty affording energy bills. 1: No difficulty; 5 = Great difficulty (n = 12).	3.50	2.25	-1.25	Less difficulty
Self-restriction of access to energy services in order to be able to afford energy bills. 1: Not restricted at all; 5: Restricted to a great extent.				
Heating (n = 8)	3.11	2.73	-0.38	-
Cooking (n = 12)	2.25	2.00	-0.25	-
Refrigeration (switching off fridge or freezer) (n = 12)	1.00	1.50	0.50	-
Cooling your home (n = 11)	2.09	2.09	0.00	-
Doing laundry (n = 12)	2.50	2.25	-0.25	-
Heating hot water (n = 9)	2.27	2.89	0.62	-
Lighting (n = 12)	2.67	1.75	-0.92	-
Running electronic devices (for example, TVs, computers and phones) (n = 12)	2.17	2.17	0.00	-

Table 10.7. Household responses to the 'baseline survey' and 'follow up' survey in the Home Monitoring for Well-being programme (paying bills and self-restriction of access to energy services). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Self-restriction of energy services

Table 10.7 also shows the results with respect to the self-restriction of access to energy services by householders. Across these items, the analysis shows no statistically significant change at 90% confidence between the baseline survey and follow-up responses.

Negative impacts of energy struggles

Table 10.8 shows the findings with respect to the negative impacts of challenges with paying for energy. The findings suggest that, despite the positive change with respect to the ability to pay energy bills described above, the Home Monitoring for Well-being programme did not produce any statistically significant change (at 90%) to householders' experiences of the negative impacts of difficulties paying for energy.

Energy literacy and know how

Table 10.9 shows the findings with respect to the energy literacy and know-how of the householders. The analysis shows a statistically significant difference (at 90%) between the 'baseline' and 'follow-up' survey with respect to householders knowing that they were on the best energy tariff. These findings are a further reflection of the positive impacts of the Home Monitoring for Well-being project.

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Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Negative impacts on household of challenges paying for energy: 1: No impact at all; 5: A lot of impact				
Physical health or well-being (n = 10)	2.25	2.50	0.25	-
Mental health (n = 11)	3.17	2.45	-0.72	-
Ability to study at home (n = 7)	2.00	2.20	0.20	-
Ability to work at home (n = 3)	1.50	2.29	0.79	-
Ability to have visitors in the home (n = 11)	1.64	1.67	0.03	-
Feeling of pride in the home (n = 12)	1.50	2.00	0.50	-
Feeling comfortable in the home (n = 11)	2.00	2.27	0.27	-
Feeling safe and secure in the home (n = 12)	1.67	1.83	0.16	-
Ability to access online/digital communication services … (n = 12)	1.42	1.67	0.25	-
Ability to enjoy recreational activities in the home (n = 12)	1.75	1.75	0.00	-

Table 10.8. Household responses to the 'baseline survey' and 'follow up' survey in the Home Monitoring for Well-being programme (negative impacts of problems affording energy).

Survey items	Baseline survey mean	Follow-up survey mean	Difference between means	Description of change
Extent of agreement with statements: 1 = 'I don't agree at all' and 5 = 'I strongly agree'.				
I know my approximate monthly energy consumption or costs (n = 11)	4.08	3.55	-0.53	
I understand my energy bills (n = 11)	3.33	4.00	0.67	-
I know that I am on the best energy tariff for me (n = 10)	2.27	3.00	0.73	Greater confidence
I know how to manage my energy bills online (n = 11)	3.58	3.91	0.33	-
I know how to contact my energy supplier (n = 11)	4.42	4.36	-0.06	-
I know how to save energy in my home (n = 12)	4.33	4.08	-0.25	-
I know if my home is well insulated or not (n = 8)	3.33	3.38	0.05	-
I am confident that I am receiving all benefits/welfare payments that I am entitled to (n = 12)	3.08	3.75	0.67	-
I think that my local community is supportive of people who struggle to pay their energy bills (n = 5)	3.17	3.36	0.19	-
I feel a sense of stigma or shame because of my struggles with energy bills (n = 10)	2.18	2.00	-0.18	-

Table 10.9. Household responses to the 'baseline survey' and 'follow up' survey in the Home Monitoring for Well-being programme (energy literacy and know how). The green shading indicates variables where statistically significant findings were observed at 90% confidence.

Longer term impacts: the follow-up survey

The Home Monitoring for Well-being 'follow-up' survey contained six questions that retrospectively asked households about changes during the period since their participation in the project. The results are shown in Table 10.10. The findings from these questions are mixed. While the Home Monitoring for Well-being programme appears to have led to change with respect to learning about using less energy (71%), saving on energy (79%) and lowering energy bills (86%), this has not fed through into widespread change with respect to physical health (36%) and mental health (36%).

	Agree	Neither	Disagree
I have learned more about how to use less energy through participation in the project.	10 (71%)	4 (29%)	0 (0%)
I have learned more about how to save on the cost of energy through participation in the project.	11 (79%)	3 (21%)	0 (0%)
I think my energy bills will be lower through participation in the project.	12 (86%)	2 (14%)	0 (0%)
Participating in the project has improved the physical health of my household.	5 (36%)	7 (50%)	2 (14%)
Participating in the project has improved the mental health of my household.	5 (36%)	7 (50%)	2 (14%)
I met new people through participation in the project	10 (72%)	2 (14%)	2 (14%)

Table 10.10. Longer-term household impacts of the Affordable Warmth programme (n = 14).

11.6. Legacy and impacts for Repowering London (EO6)

The work that is evaluated in this report has the following impacts and legacies for Repowering London.

Identify

1. Following the recruitment challenges that were experienced in the Home Monitoring for Well-being project, Repowering London has developed further approaches to recruitment for similar future projects. These include attending more local organisations (such as nurseries) and local events and starting to seek referrals from local community health and social care workers (inspired by ALIenergy).

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Alleviate

1. The Repowering London team has confirmed that they have learned a lot about implementing monitoring and feedback projects and that this will make it more straightforward to implement such projects in the future.

2. Repowering London now has more ambitious objectives for such projects. For instance, they are now planning projects that employ monitoring to underpin both bespoke advice and retrofit:
'In the Home Monitoring for Well-being project we've been learning as we go, it's an innovation project. Now we're putting in funding applications for projects that involve retrofit on the basis of bespoke monitoring, and the ability to offer targeted advice to people in the early stages of considering retrofit projects.'

11.7. Key learning from the Home Monitoring for Well-being project

Identify

1. The project highlights the value of working with local partners, in this case Resident Management Organisations, to identify and recruit households in energy poverty.

2. At the same time, the project highlights the way in which the same approach can work differently in different places depending on other factors, in this case the level of 'social capital' that was present in the two estates.

3. The Home Monitoring for Well-being project shows that lack of trust, security concerns and concerns about the level of commitment required can restrict recruitment to projects.

Alleviate

1. The Home Monitoring for Well-being project shows that projects with sizeable costs for monitoring kits and for in-depth and ongoing household engagement are possible when these costs can be fully budgeted. Grant funding, funding from energy suppliers and network operators, and partnerships with municipalities might offer funding options.

2. The project emphasises that setting up monitoring systems, designing and delivering comprehensive feedback and supporting households with budgets for the purchase of appliances and products are all time-consuming activities.

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3. Nonetheless, the project highlights the potential value of monitoring and feedback in supporting the provision of bespoke solutions for householders. It offers examples of this with respect to effective ways in which to spend funds for appliances and products.

4. The project highlights the positive potential of the replacement of major appliances, such as inefficient cooking appliances, as important energy efficiency measures.

5. The project shows that in-depth and ongoing household engagement can be very beneficial in some contexts, for building trust, keeping households engaged and facilitating tailored advice, as well as providing social contact for people who are isolated. However, it can also be off-putting for some households.

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12. Appendix 1: Evaluation materials

12.1. Partner interview materials

Topic guide/protocol (interviews 1-3 of 4)

Introduction

1. Greetings and pleasantries.
2. Confirmation of interviewees' name.
3. Provision of interviewer's name.
4. Confirmation that this is a good time to talk and how much time the interviewee has. Consider rescheduling if time is too short? Thanks for participation.
5. Consent process.
6. Switch on recorder.
7. Confirmation for the recording:
    a. Of the name of interviewer and interviewee (and ID#), the date, the project.
    b. That the interviewee agrees that the consent process has been undertaken (as above).

Main interview

1. Introduction: the purpose of this interview is to explore key progress, challenges and learning over the previous 3/4 months.
2. Can you reflect on the processes, successes and challenges within the context of learning and exchange between yourself and the other CEES partners.
3. What have been your main project objectives over the past 3/4 months? Did these change at all over this period?
4. To what extent do you feel that you have fulfilled these objectives?
5. What has gone really well in the past 3/4 months.
6. What have been the main challenges you have experienced fulfilling these objectives?
7. What have been the key learning points over this period?
8. Have you made any adjustments to your project objectives for the coming 3/4 months?
9. What do you see as the key challenges for the next 3/4 months?

Closing

1. Is there anything else that we haven't discussed that you would like to mention?
2. Expression of thanks and best wishes.

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Topic guide/protocol (interview 4 of 4)

Introduction

1. Greetings and pleasantries.
2. Confirmation of interviewees' name.
3. Provision of interviewer's name.
4. Confirmation that this is a good time to talk and how much time the interviewee has. Consider rescheduling if time is too short? Thanks for participation.
5. Consent process (if there are new interviewees).
6. Switch on recorder.
7. Confirmation for the recording:
    a. Of the name of interviewer and interviewee (and ID#), the date, the project.
    b. That the interviewee agrees that the consent process has been undertaken (as above).

Main interview

1. Introduction: the purpose of this interview is to explore key progress, challenges and learning over the previous 3/4 months, final impressions of the pilot and legacy/sustainability issues NB: The interviews will also cover the FUND aspects of the pilot.
2. Can you reflect on the processes, successes and challenges within the context of learning and exchange between yourself and the other CEES partners.
3. What have been your main project objectives over the past 3/4 months? Did these change at all over this period?
4. To what extent do you feel that you have fulfilled these objectives?
5. What has gone really well in the past 3/4 months.
6. What have been the main challenges you have experienced fulfilling these objectives?
7. What have been the key learning points over this period?
8. How would you – in just a few sentences – summarise how well you think your pilot has gone? What have been the main successes and challenges?
9. Our final topic is the future legacy that your pilot has created for your organization. Can you tell me about your plans to continue and develop the work that you have done in CEES. What benefits has CEES brought to your organization?

Closing

1. Is there anything else that we haven't discussed that you would like to mention?
2. Expression of thanks and best wishes.

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Participant information and consent form

About the project and evaluation
The CEES project is being evaluated by the University of Birmingham. The evaluation is very important because it will support other organisations all over Europe to help even more households with energy poverty. To help us with the evaluation, we would be grateful if you would participate in a series of evaluation interviews relating to the progress and challenges within the project.

About the interviews
The interviews will take place in Zoom, will last up to one hour and will take place at a time that is convenient for you. The interviews will be very informal, like a conversation. There are no right or wrong answers and it is definitely not a test. Anything you can tell us about your experience – positive or negative – is useful and interesting for us. For some of the interviews, some preparation will be necessary.

Taking part in an interview is voluntary, you don't have to, and nothing will happen if you decide not to. You can stop participating at any time and you don't have to answer any questions you don't want to. If you agree, we will record the interview, either through audio-recording or note-taking (or both). Your interview data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting. In some cases, we may wish to use anonymous direct quotes from the interviews in reporting.

In the interview itself, the interviewer will talk you through this table and will secure your consent to these arrangements.

Interviewer: please record Yes (Y) or No (N) and add any comments below.	**Yes (Y) or no (N)**
The interviewee has confirmed that they have read the participant information sheet, particularly the sections about data security, confidentiality and anonymity.	
The interviewee has confirmed that she/he has been offered the opportunity to ask questions.	
The interviewee has consented to be interviewed.	
The interviewee has consented for the interview to be audio recorded and transcribed.	

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The interviewee has consented for *unattributed/anonymous* quotations to be used in outputs	
The interviewee has consented for quotations to be used in outputs that are attributed to the interviewee's organisation.	

12.2. Les 7 Vents household interview materials

Topic guide/protocol

1. Description of household: type of household / age group / place of living / comfort in the dwelling
2. How long have you been renovating your home?
3. What motivated you to undertake a participatory project?
4. Have you carried out a participatory project at someone else's premises before your project?
5. Have you noticed/experienced any difficulties prior to the construction site for the organization of a participatory worksite? (e.g. find a craftsman/ manage meals/ stress / combine calendars?)
6. Before the project, how did you imagine your participative project? : in terms of final rendering, quantity done, atmosphere?...
7. And finally in real life...?
8. How did you experience your project with volunteers? Can you break down the positives and negatives?
9. What can you tell us about the professional's intervention?
10. What can you tell us about the accompaniment of the 7 winds?
11. How did you feel after this project?
12. Does this experience make you want to start a participatory project again at home or at someone else's? Can you argue why?
13. Feedback from the owner on his participative construction site
14. Date of the interview

Consent statement

I agree that Les 7 Vents will take notes on my experiences in the CEES project and that Les 7 Vents will share an English translation of these notes (anonymised) with the CEES project evaluators at the University of Birmingham, UK. I also give my consent for anonymous citations to be used in CEES project reports and other results.

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12.3. Quantitative survey materials

The surveys are presented here in English only. They are in a similar format to their on-paper format, although they have been condensed to save space. Text specific to each pilot project was added in indicated places. The surveys were also set up online in Microsoft Forms.

Household baseline survey

We would like to ask you some questions as part of the evaluation of the [project name] project. The objective of the [project name] project is to help households deal with energy bills and it is being evaluated by the University of Birmingham. This evaluation is very important because it will support other organisations all over Europe to help even more households with paying their energy bills. To help us with the evaluation, we would be grateful if we could ask you some questions. This will take about 10 minutes.

1. I am now going to read some important information about your participation in this part of the evaluation and how we will handle your data. Answering these questions is voluntary and you can participate in the [project name] project and get help with your energy bills without participating in this survey. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your evaluation data to be deleted up to one month after today by contacting [contact details]. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). The data from this survey will be shared with the [project name] and CEES evaluation teams and no one else. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results.

Interviewer: Please tick this box to confirm that the participant understands and consents to these conditions. **[ ]**

If you cannot confirm this, please do not continue with the survey.

2. ***Please enter the unique household ID. If you do not know this, please enter the name of the main household contact.*** **[ ]**

3. The first few questions are about your household and property. First, could you tell me how many members there are in your household. Please include all adults and children who usually live in your household, including yourself.
   [ ]

4. For the next four questions, we would like you to tell us about the members of your household. Together, let's write down a list of the household members, so that you can tell me about them in the same order for each question. Please could you tell us the ages of the people in your

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household (within these age bands). *Interviewer: Please tick the appropriate box for each person. Please tick just one box in each row*.

	17 or under	18-24	25-44	45-64	65 or over	Don't know/prefer not to say
Yourself						
Person 2						
Person 3						
Person 4						
Person 5						
Person 6						
Person 7						

5. Please could you tell us the gender of the members of your household. *Interviewer: Please tick the appropriate box for each person. Please tick just one box in each row.*

	Male	Female	Non-binary	Don't know/prefer not to say
Yourself				
Person 2				
Person 3				
Person 4				
Person 5				
Person 6				
Person 7				

6. Do any members of your household have a long term illness or disability ***that limits their everyday life***? *Interviewer: Please tick the appropriate box for each person. Please tick just one box in each row.*

	Yes	No	Don't know/prefer not to say
Yourself			
Person 2			
Person 3			
Person 4			
Person 5			
Person 6			
Person 7			

7. Are any members of your household in paid employment (full time or part time)? Interviewer: Please tick the appropriate box for each person. Please tick just one box in each row.

	Yes	No	Don't know/prefer not to say
Yourself			
Person 2			

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Person 3			
Person 4			
Person 5			
Person 6			
Person 7			

8. There are now just a few questions about your property. First, what type of property do you live in? *Interviewer: Please tick the appropriate box.*
   - [ ] A house
   - [ ] An apartment or studio that was purpose-built as an apartment
   - [ ] An apartment or studio that was converted from another type of property (such as a house or a commercial building)
   - [ ] Other (please state) _____

9. Next, can you tell me are you renting your home or do you own it? *Interviewer: Please tick the appropriate box.*
   - [ ] Private tenant/rental
   - [ ] Social tenant/rental
   - [ ] Owner-occupier
   - [ ] Part owner/part tenant
   - [ ] Don't know/prefer not to answer

10. Finally on your property, how many LIVING/DINING ROOMS and BEDROOMS does your property have in total (please do not count kitchens, bathrooms and hallways)? *Interviewer: Please tick the appropriate box.*
   - [ ] One
   - [ ] Two
   - [ ] Three
   - [ ] Four
   - [ ] Five
   - [ ] Six
   - [ ] Seven
   - [ ] Eight or more
   - [ ] Don't know/prefer not to answer

11. The next set of questions is about your experiences with respect to energy bills over the past year. For this first question, please think about the past year. How much difficulty have you had with affording your energy bills? Please could you give an answer ***between one and five***, where ***one means 'no difficulty'*** and ***five means 'great difficulty'***. *Interviewer: please tick the appropriate box*.
   - [ ] 1: no difficulty
   - [ ] 2
   - [ ] 3
   - [ ] 4
   - [ ] 5: great difficulty

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[ ] Prefer not to say/Don't know

12. For the next question, please keep thinking about the past year. Please indicate the extent to which you have ***restricted your use of these things, in ways that you did not want to, in order to be able to afford your energy bill***. For each item on the list, please could you give an answer between one and five, **where one means 'not restricted at all'** and **five means 'restricted to a great extent'**. You can also answer ***No answer/Don't know/Not applicable***, as appropriate. *Interviewer: Please tick the appropriate boxes. Please tick just one box in each row.*

	1: not restricted at all	**2**	**3**	**4**	**5: restricted to a great extent**	**No answer/don't know/not applicable**
Heating	1	2	3	4	5	
Cooking	1	2	3	4	5	
Refrigeration (for example, maybe you have switched off your fridge and/or freezer)						
	1	2	3	4	5	
Cooling your home (for example, maybe you have air conditioning or electric fans but haven't used them when it is very hot)						
	1	2	3	4	5	
Doing laundry	1	2	3	4	5	
Heating hot water	1	2	3	4	5	
Running electronic devices (for example, TVs, computers and phones).						
	1	2	3	4	5	
	1: not restricted at all	**2**	**3**	**4**	**5: restricted to a great extent**	**No answer/don't know/not applicable**

13. For the next question, there is another list. This time, again thinking about the past year, to what extent have challenges of paying for energy had a negative impact on these things in your household? In this case, please answer ***between one and five, where one means 'no impact at all' and five means 'a lot of impact'.*** You can also answer ***No answer/Don't know/Not applicable***, as appropriate. In each case, we are thinking about **you and other members of your household**. *Interviewer: Please tick the appropriate boxes. Please tick just one box in each row.*

	1: no impact at all	**2**	**3**	**4**	**5: a lot of impact**	**No answer/don't know/not applicable**
Physical health						
	1	2	3	4	5	
Mental health and well-being						
	1	2	3	4	5	
Ability to study at home						
	1	2	3	4	5	
Ability to work at home						
	1	2	3	4	5	

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Ability to have visitors to your home						
	1	2	3	4	5	
Feeling of pride in your home						
	1	2	3	4	5	
Feeling comfortable in your home						
	1	2	3	4	5	
Feeling safe and secure in your home						
	1	2	3	4	5	
Ability to access online and digital communication services such as websites, messaging and phone calls						
	1	2	3	4	5	
Ability to enjoy recreational activities (such as TV, radio and music) and hobbies in your home.						
	1	2	3	4	5	
	1: no impact at all	**2**	**3**	**4**	**5: a lot of impact**	**No answer/don't know/not applicable**

14. ***[NB Interviewer: this question is optional. Please ask this question only if the interview is going well.]*** For this final question, I am going to read out some statements. Please could you tell me the extent to which you agree with the statements? In each case, please could you give an answer ***between one and five***, where ***one means 'I don't agree at all'*** and ***five means 'I strongly agree'***. You can also answer ***No answer/Don't know/Not applicable***, as appropriate. *Interviewer: Please tick the appropriate boxes. Please tick just one box in each row.*

	1: I don't agree at all	**2**	**3**	**4**	**5: I strongly agree**	**No answer/don't know/not applicable**
I know my approximate monthly energy consumption or costs.						
	1	2	3	4	5	
I understand my energy bills.						
	1	2	3	4	5	
I know that I am on the best energy tariff for me.						
	1	2	3	4	5	
I know how to manage my energy bills online.						
	1	2	3	4	5	
I know how to contact my energy supplier.						
	1	2	3	4	5	
I know how to save energy in my home.						
	1	2	3	4	5	
I know if my home is well insulated or not.						
	1	2	3	4	5	
I am confident that I am receiving all welfare/benefits payments that I am entitled to.						
	1	2	3	4	5	
I think that my local community is supportive of people who struggle to pay their energy bills.						
	1	2	3	4	5	
I feel a sense of stigma or shame because of my struggles with energy bills.						
	1	2	3	4	5	

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	1: I don't agree at all	2	3	4	5: I strongly agree	No answer/don't know/not applicable

Thank you for completing the survey,
your support is much appreciated.

Household follow-up survey

We would like to ask you some questions for use as part of the [project name] project. The objective of the CEES project is to help households deal with energy bills and it is being evaluated by the University of Birmingham. This evaluation is very important because it will support other organisations all over Europe to help even more households with paying their energy bills. To help us with the evaluation, we would be grateful if we could ask you some questions. This will take about 10 minutes.

1. I am now going to read some important information about your participation in this part of the evaluation and how we will handle your data. Answering these questions is voluntary and you can participate in the [project name] project and get help with your energy bills without participating in this survey. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your evaluation data to be deleted up to one month after today by contacting [contact details]. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). The data from this survey will be shared with the Home Monitoring for Well-being and CEES evaluation teams and no one else. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results.

Interviewer: Please tick this box to confirm that the participant understands and consents to these conditions. **[ ]**

If you cannot confirm this, please do not continue with the survey.

2. ***Please enter the unique household ID. If you do not know this, please enter the name of the main household contact.*** **[ ]**

3. The next set of questions is about your experiences with respect to energy bills ***since your participation in the [project name] project***. For this first question, please think about the past year. How much difficulty have you had with affording your energy bills? Please could you give an answer ***between one and five***, where ***one means 'no difficulty'*** and ***five means 'great difficulty'***. *Interviewer: please tick the appropriate box*.
   [ ] 1: no difficulty
   [ ] 2
   [ ] 3

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[ ] 4
[ ] 5: great difficulty
[ ] Prefer not to say/Don't know

4. For the next question, please keep thinking ***about the period since your participation in the [project name] project***. Please indicate the extent to which you have ***restricted your use of these things, in ways that you did not want to, in order to be able to afford your energy bill***. For each item on the list, please could you give an answer between one and five, **where one means 'not restricted at all'** and **five means 'restricted to a great extent'**. You can also answer ***No answer/Don't know/Not applicable***, as appropriate. *Interviewer: Please tick the appropriate boxes. Please tick just one box in each row.*

	1: not restricted at all	**2**	**3**	**4**	**5: restricted to a great extent**	**No answer/don't know/not applicable**
Heating	1	2	3	4	5	
Cooking	1	2	3	4	5	
Refrigeration (for example, maybe you have switched off your fridge and/or freezer)						
	1	2	3	4	5	
Cooling your home (for example, maybe you have air conditioning or electric fans but haven't used them when it is very hot)						
	1	2	3	4	5	
Doing laundry	1	2	3	4	5	
Heating hot water	1	2	3	4	5	
Running electronic devices (for example, TVs, computers and phones).						
	1	2	3	4	5	

5. For the next question, there is another list. This time, again thinking ***about the period since your participation in the [project name] project***, to what extent have challenges of paying for energy had a negative impact on these things in your household? In this case, please answer ***between one and five, where one means 'no impact at all' and five means 'a lot of impact'.*** You can also answer ***No answer/Don't know/Not applicable***, as appropriate. In each case, we are thinking about **you and other members of your household**. *Interviewer: Please tick the appropriate boxes. Please tick one box in each row.*

	1: no impact at all	**2**	**3**	**4**	**5: a lot of impact**	**No answer/don't know/not applicable**
Physical health						
	1	2	3	4	5	
Mental health and well-being						
	1	2	3	4	5	
Ability to study at home						
	1	2	3	4	5	
Ability to work at home						
	1	2	3	4	5	

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Ability to have visitors to your home						
	1	2	3	4	5	
Feeling of pride in your home						
	1	2	3	4	5	
Feeling comfortable in your home						
	1	2	3	4	5	
Feeling safe and secure in your home						
	1	2	3	4	5	
Ability to access online and digital communication services such as websites, messaging and phone calls						
	1	2	3	4	5	
Ability to enjoy recreational activities (such as TV, radio and music) and hobbies in your home.						
	1	2	3	4	5	
	1: no impact at all	**2**	**3**	**4**	**5: a lot of impact**	**No answer/don't know/not applicable**

6. For this final question, I am going to read out some statements. Please could you tell me the extent to which you agree with the statements? In each case, please could you give an answer ***between one and five***, where ***one means 'I don't agree at all'*** and ***five means 'I strongly agree'***. You can also answer ***No answer/Don't know/Not applicable***, as appropriate. *Interviewer: Please tick the appropriate boxes. Please tick just one box in each row.*

	1: I don't agree at all	**2**	**3**	**4**	**5: I strongly agree**	**No answer/don't know/not applicable**
I know my approximate monthly energy consumption or costs.						
	1	2	3	4	5	
I understand my energy bills.						
	1	2	3	4	5	
I know that I am on the best energy tariff for me.						
	1	2	3	4	5	
I know how to manage my energy bills online.						
	1	2	3	4	5	
I know how to contact my energy supplier.						
	1	2	3	4	5	
I know how to save energy in my home.						
	1	2	3	4	5	
I know if my home is well insulated or not.						
	1	2	3	4	5	
I am confident that I am receiving all welfare/benefits payments that I am entitled to.						
	1	2	3	4	5	
I think that my local community is supportive of people who struggle to pay their energy bills.						
	1	2	3	4	5	
I feel a sense of stigma or shame because of my struggles with energy bills.						
	1	2	3	4	5	

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	1: I don't agree at all	2	3	4	5: I strongly agree	No answer/don't know/not applicable

7. Finally, to what extent do you agree or disagree with the following statements about the Home Monitoring for Well-being project? In each case, please could you give an answer between one and five, ***where one means 'I don't agree at all' and five means 'I strongly agree'***. You can also answer No answer/Don't know/Not applicable, as appropriate.

	1: I don't agree at all	2	3	4	5: I strongly agree	No answer/don't know/not applicable
I think that the project was well run.						
	1	2	3	4	5	
I felt listened to and respected by the people who were delivering the project.						
	1	2	3	4	5	
I would recommend the project to other people who struggle to pay their energy bills.						
	1	2	3	4	5	
I feel that the project was adaptable to suit my needs.						
	1	2	3	4	5	
I have learned more about how to use less energy through participation in the project.						
	1	2	3	4	5	
I have learned more about how to save on the cost of energy through participation in the project.						
	1	2	3	4	5	
I think my energy bills will be lower through participation in the project.						
	1	2	3	4	5	
Participating in the project has improved the physical health of my household.						
	1	2	3	4	5	
Participating in the project has improved the mental health of my household.						
	1	2	3	4	5	
I have got to know some new people through the project.						
	1	2	3	4	5	
	1: I don't agree at all	**2**	**3**	**4**	**5: I strongly agree**	**No answer/don't know/not applicable**

8. Is there anything further that you would like to add?

Thank you for completing the survey,
your support is much appreciated.

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Household event survey

The objective of the EU-funded Community Energy for Energy Solidarity (CEES) project is to help households deal with energy bills. The project is being evaluated by the University of Birmingham. The evaluation is very important because it will support other organisations all over Europe to help even more households with paying their energy bills. To help us with the evaluation, we would be grateful if we could ask you some questions now. This will take about 10 minutes.

1. I am going to read some important information about your participation in the evaluation. Answering these questions is voluntary and you can participate in the [project name] project and get help with your energy bills without participating in the CEES project evaluation. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your data to be deleted up to one month after today by contacting the project team: contact details can be found in earlier communication from the team. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). We won't pass on any details about you to anyone else beyond the CEES team. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results.

Please tick this box to confirm that the participant understands and consents to these conditions. **[ ]**

If you cannot confirm this, please do not continue with the survey.

2. ***Please enter your household ID#.*** **[ ]**

3. This question is about the ***[Interviewer: say which kind of event, telephone call or home visit]*** today. For this question, I am going to read out some statements. Please could you tell me the extent to which you agree with the statements? In each case, please could you give an answer ***between one and five***, where ***one means 'I don't agree at all'*** and ***five means 'I strongly agree'***. You can also answer ***No answer/Don't know/Not applicable***, as appropriate. Please tick just one box in each row.

	1: I don't agree all	**2**	**3**	**4**	**5: I strongly agree**	**No answer/don't know/not applicable**
I have learned practical information and skills today to help me reduce my energy consumption and costs.						
I feel more confident than before that I can reduce my energy consumption and costs.						
I intend to take further action that I hope will reduce my energy consumption and costs.						
The workshop today was well-run.						

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The workshop today suited my needs.						
The workshop today was conducted in a respectful way.						
	1: I don't agree at all	**2**	**3**	**4**	**5: I strongly agree**	**No answer/don't know/not applicable**

4. What was the best aspect of today's workshop for you?

5. Was there anything you didn't like or that didn't work for you?

6. Is there anything further you would like to add?

Thank you for completing the survey,
your support is much appreciated.

Trainee survey

Thank you for your participation in the [partner name] training event today. The objective of the EU-funded Community Energy for Energy Solidarity (CEES) project is to help households deal with energy poverty. The purpose of the training session today was to support you to help households.

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The project is being evaluated by the University of Birmingham in the UK. The evaluation is very important because it will support other organisations all over Europe to help even more households with energy poverty. To help us with the evaluation of the project, we would be grateful if we could ask you some questions.

1. Please note, answering these questions is voluntary and you can participate in the ALIenergy training without participating in the evaluation. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your data to be deleted up to one month after today by contacting [contact details]. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). We won't pass on any details about you to anyone else beyond ALIenergy and the University of Birmingham. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results. Please contact Lynda or Rachel if you have any questions.

Please confirm that you are willing to complete this survey and that you understand and give your consent to these arrangements. [ ]

2. **Date of the training : _ _ / _ _ / _ _**

3. **What was the best aspect of today's event for you? Please use the box below.**

4. **Was there anything you didn't like or that didn't work for you? Please use the box below.**

5. To what extent do you agree with the following statements? Please circle the appropriate number: in all cases, **1 = Strongly Disagree and 5 = Strongly Agree**. Don't know, no answer or not appropriate? Just leave that question blank.

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	1: Strongly disagree	2	3	4	5: Strongly agree
At the training event I learned practical information and skills to help me to support householders to reduce their energy consumption and costs.					
	1	2	3	4	5
Following the training event, I feel MORE confident than before that I can support householders to reduce their energy consumption and costs.					
	1	2	3	4	5
Following the training event, I intend to take action to reduce my own energy consumption and costs.					
	1	2	3	4	5
The training event was well-run.					
	1	2	3	4	5
The training event was tailored to my needs.					
	1	2	3	4	5

6. **If there is anything you would like to add? Please use the box below.**

Thank you for completing the survey.

Energy advisor survey

Thank you for your work on the [project name] project by [partner name]. The project is being evaluated by the University of Birmingham. The evaluation is very important because it will support other organisations all over Europe to help even more households with energy poverty. To help us with the evaluation of the project, we would be grateful if we could ask you some questions.

Please note, answering these questions is voluntary and you can work on the [project name] project without participating in the evaluation. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your data to be deleted up to one

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month after today by contacting [contact details]. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). We won't pass on any details about you to anyone else beyond [partner name] and the University of Birmingham. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results.

Please can you confirm that you are willing to complete this survey, and that you understand and give your consent to these arrangements. If you have any questions, please feel free to contact [contact details]
(tick box)

To what extent do you agree with the following statements about project? Please circle the appropriate number: in all cases, 1 = Strongly Disagree and 5 = Strongly Agree. Don't know, no answer or not applicable? Just leave that question blank.

	1: Strongly disagree	**2**	**3**	**4**	**5: Strongly agree**
I have learned a lot and developed new skills through participating in the project delivery.					
	1	2	3	4	5
My confidence has grown through participating in the project delivery.					
	1	2	3	4	5
Participation in the project delivery has enhanced my CV and employability.					
	1	2	3	4	5
The project was well-run.					
	1	2	3	4	5
The project management team was easy and flexible to work with.					
	1	2	3	4	5
I feel more connected to my local community through participating in the project delivery.					
	1	2	3	4	5

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What was the best aspect of working on the project for you? Please use the box below.

Was there anything you didn't like or that didn't work for you? Please use the box below.

Is there anything else you would like to add? Please use the box below.

Thank you for completing the survey.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

Partner/stakeholder survey

Thank you for supporting [partner name] in the delivery of the *[project name]* project, with the objective of helping households deal with energy poverty. The project is being evaluated by the University of Birmingham. The evaluation is very important because it will support other organisations all over Europe to help even more households with energy poverty. To help us with the evaluation of the project, we would be grateful if we could ask you some questions.

Please note, answering these questions is voluntary and you can participate in the [project name] project without participating in the evaluation. You can stop participating at any time and miss out any questions you don't want to answer. You can ask for your data to be deleted up to one month after today by contacting [contact details. All data will be securely held and used in accordance with the EU General Data Protection Regulation (GDPR). We won't pass on any details about you to anyone else beyond [partner name] and the University of Birmingham. Your answers will be used for evaluation purposes only. We will not identify any individuals in any reporting of survey results.

Please can you confirm that you are willing to complete this survey, and that you understand and give your consent to these arrangements. If you have any questions, please feel free to ask them now or by contacting [add telephone number].

Tick box

To what extent do you agree with the following statements about project? Please circle the appropriate number: in all cases, 1 = Strongly Disagree and 5 = Strongly Agree. Don't know, no answer or not applicable? Just leave that question blank.

	1: Strongly disagree	**2**	**3**	**4**	**5: Strongly agree**
I think that the project has had an impact on energy poverty in participating households.					
	1	2	3	4	5
I think that the project has had a positive impact on my own or my organisation's ability to work on energy poverty.					
	1	2	3	4	5
I think that the project has enhanced my own or my organisation's appreciation of and respect for the challenges faced by households in energy poverty.					
	1	2	3	4	5

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I think the project was well-run.					
	1	2	3	4	5
I think the project has created and/or supported local networks of organisations and individuals working on energy poverty.					
	1	2	3	4	5
I would be keen to collaborate on future energy poverty work with the project.					
	1	2	3	4	5

What do you think were the main benefits or achievements of the project, if any? Please use the box below

What have been the benefits to your organisation of participating in the project, if any? Please use the box below.

Is there anything you think could be better done differently? Please use the box below.

CEES has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101026972.

If there is anything you would like to add, please use the box below.

Thank you for completing the survey.

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