



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

Final Evaluation Framework

Kevin Burchell, Rosie Day and Harriet Thomson
University of Birmingham, UK

December 2023

www.energysolidarity.eu



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



cees
COMMUNITY ENERGY FOR
ENERGY SOLIDARITY

Contents

Executive summary	3
Introduction	3
The CEES project	3
About this document	3
1. The CEES project	5
The challenge of energy poverty	5
Community Energy for Energy Solidarity	5
Key terms within CEES	6
CEES aim and objectives	8
CEES pilot partners and pilot projects	8
2. CEES evaluation aims and principles	12
Core evaluation aims	12
Evaluation principles	12
Evaluation objectives (EOs) and questions	13
3. Evaluation design and methods	17
Evaluation design	17
Evaluation objectives/methods matrix	17
Ethical framework	19
Qualitative interviews	19
Informal information gathering	20
Quantitative surveys	20
Progress monitoring data	22
Documentary information	23
Evaluation methods and pilot projects	23
Evaluation schedule	23
Appendix 1: Criteria for the selection of promising practices or ‘mechanisms’	25
Appendix 2: Energy poverty: definitions and indicators	29
Appendix 3: Energy solidarity: definitions and indicators	32
Appendix 4: Partner interview materials	35
Appendix 5: Quantitative survey materials	39
References	59



Executive summary

Introduction

This is Version 2 (V2) of the Community Energy for Energy Solidarity (CEES) Evaluation Framework (D2.1). V1 of the Evaluation Framework was submitted in December 2021. Since this was before the CEES pilot projects had been finalised, V1 of the Evaluation Framework presented a palette of possible evaluation methods. This updated version of the Evaluation Framework was prepared in the early autumn of 2023, during the course of its implementation in the CEES project. At this time, much of the evaluation method had been clarified. Thus, the objectives of V2 of the Evaluation Framework are to: introduce the CEES project; present brief descriptions of the six CEES pilot projects; clarify the evaluation objectives, questions and methods; and to present the evaluation data collection instruments that are being employed in the project. In addition, V2 includes criteria for the selection of 'promising practices' (see Appendix 1). The evaluation methods and data collection instruments were approved by the University of Birmingham research ethics committee in the summer of 2022.

The CEES project

The objectives of the Community Energy for Energy Solidarity (CEES) project that are most relevant to this Evaluation Framework are: to bring together six energy communities of various kinds that have experiences of various approaches (known within CEES as 'mechanisms') to working on energy poverty; for these energy communities to inspire, share and exchange approaches to energy poverty alleviation; for the six energy communities to design and implement pilot projects, including mechanisms that are new to them, with the objective of working on energy poverty; and to evaluate these pilot projects.

About this document

Evaluation of the pilot projects is central to CEES (and is part of WP2). With this in mind, University of Birmingham has developed this Evaluation Framework (D2.1) for the evaluation of the CEES pilot projects. The document follows a conventional structure for this purpose. This summary is followed by Chapter 1, which focuses on the CEES project in terms of its underpinning principles, its aims and objectives, and brief summaries of the six pilot projects that are being evaluated as part of WP2.

Chapter 2 introduces the CEES project evaluation and focuses on the aims and principles of the evaluation and the evaluation questions that will enable to evaluation aims to be realised. Chapter 3 focuses on the mixed-methods evaluation design and methods; the ways in which these respond to the EQs; the ethical framework for the evaluation; the ways in which each evaluation method will be implemented across the six pilot projects; and the evaluation timeline.



Chapter 3 is followed by Appendix 1 (criteria for the selection of ‘promising practices’), Appendix 2 (further details about definitions and indicators of energy poverty), Appendix 3 (further details about definitions of and indicators for energy solidarity), Appendix 4 (the interview materials) and Appendix 5 (the survey materials). This is followed by a list of references.



1. The CEES project

The challenge of energy poverty

Energy poverty is defined in a wide range of ways. Within CEES, drawing in particular on the work of Day et al. (2016), energy poverty is defined 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 wellbeing, relationships, social inclusion, employment, recreation and education).

Energy poverty leads to significant adverse impacts on people's lives, for instance (Day et al. 2016):

- Poor physical and mental health outcomes.
- Challenges within familial and other relationships, and broader social exclusion.
- Limitations on access to employment, recreation and education opportunities.

In 2022, it was estimated that 9.3% of EU households – approximately 42 million people – were living in energy poverty, with wide variations across member states (Eurostat, 2022)¹. As the energy crisis has deepened, these figures are likely to be higher. Energy poverty has been recognised by the European Union (EU) as a significant issue since the Third Energy Package in 2009 and the 2019 Clean Energy for All Europeans package requires action on energy poverty. Further technical information about the CEES approach to energy poverty is available in Appendix 2. There is also public-facing information on the [CEES website](#).

Community Energy for Energy Solidarity

The Community Energy for Energy Solidarity (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 runs to the end of August 2024. CEES is an innovative response to the energy poverty challenge. The project is built on the premise that renewable energy communities and energy communities more broadly (ECs) are well-placed to implement local and community-based energy poverty alleviation projects. This is because ECs typically focus on the provision of local environmental, economic and social benefits for members, shareholders and communities (as opposed to the predominantly financial interests of commercial organisations). In addition to this focus and experience, they tend to enjoy higher levels of local trust and local knowledge than public and private sector organisations.

It is estimated that there are more than 9000 ECs in the EU (European Commission, 2022) and a further 495 in the UK (Community Energy England, 2022). The important role of ECs in the low carbon energy transition

¹ This figure relates to 'inability to keep the home adequately warm' and is used as a proxy for energy poverty in the EU. The situation in the UK is complex because each country has a different methodology for calculating fuel poverty (sic). The following figures are provided for the UK in 2021 i.e. *before the energy crisis*: 13% of households in England, 25% in Scotland, 14% in Wales, and 24% in Northern Ireland (House of Commons Library, 2023).



is recognised in the EU Clean Energy for all Europeans package of 2019. However, the role that ECs could play in alleviating energy poverty is not fully recognised within the EU and UK. Indeed, research carried out as part of CEES suggests that relatively few ECs conduct work on energy poverty. To be more specific, in findings that emphasise the rationale for the CEES project, unpublished CEES research suggests that more than two thirds of ECs undertake little (38%) or no (31%) activities to tackle energy poverty ([CEES website, 2023](#)). This research also identifies lack of funding and lack of knowledge and skills as key constraints on the work of ECs on energy poverty. Further information about ECs is available on the [CEES website](#).

Within CEES, the actions of ECs to alleviate energy poverty are seen as energy solidarity actions. In addition to this focus on energy poverty, the term energy solidarity is used within CEES to emphasise the importance of:

- 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 communities of practice on energy poverty.

In-depth information about energy solidarity is available in Appendix 2 of this document. Public-facing information can be found on the [CEES website](#).

Key terms within CEES

Prior to elaborating on the aims and objectives of the CEES project, it is important to define three terms that are used in specific ways within the project.

Mechanism

Within the CEES project, the term ‘mechanism’ is used to describe the component parts 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 several elements or mechanisms. In the CEES grant agreement, three types of mechanism are identified. The types of mechanism are as follows:

1. Fund: Mechanisms to fund or finance work on energy poverty.
2. Identify and Assess: Mechanisms to identify households in energy poverty, bring them to the project and assess their eligibility for the project.
3. Alleviate (soft and hard)²:

² Several of the CEES pilot projects include training for energy advisors. These activities have been included as part of the Alleviate mechanisms.

- a. Mechanisms to alleviate energy poverty through household engagement, provision of advice about energy poverty and energy efficiency (also known as ‘soft’ measures).
- b. Mechanisms to alleviate energy poverty through renovation and refurbishment (also known as ‘hard’ measures).

It is essential to note that the mechanisms do not exist or operate in isolation. Indeed, although they can be conceptually isolated to create this typology, in practice they will be deeply interrelated and mutually dependent. For instance, challenges within an Identify and Assess mechanism (such as a lack of participants or the recruitment of many participants who are not appropriate) will inevitably have an impact on the Alleviate ‘mechanism’ that is part of the same project. This is an important point when we come to consider the CEES evaluation, below.

For this reason, it is important to evaluate each pilot project on the basis of it being a set of interrelated ‘mechanisms’, one or more of which are directly derived from case study ‘mechanisms’ (see below), and then complemented by further approaches. Further, it is important to emphasise that ‘mechanisms’ will work differently – and may encounter different challenges – depending on the context in which they are being implemented.

Case study

Within the CEES project, the term ‘case study’ is used to refer to an established energy poverty alleviation mechanism that a CEES partner has brought to the project, with the objective of inspiring the other partners. As we will see below, the CEES case studies typically consist of one type of mechanism, for instance one Fund mechanism or one Alleviate mechanism. That said, in some cases, partner case studies consist of more than one type of mechanism. It is important to note that, across the partners, the case study mechanisms that are brought to CEES are inevitably complemented by other mechanisms that make up a coherent project (but are not considered as *case study* mechanisms within CEES). For instance, if a partner has brought an Alleviate case study mechanism to CEES, this is likely to be complemented in that partner’s practice by a Fund mechanism and an Identify and Assess mechanism.

Pilot project

Within CEES, the term ‘pilot project’ is used to refer to the energy poverty alleviation project that each partner will implement as part of CEES. Referring to the above discussion of mechanisms, it can be noted that each pilot project will be made up of more than one mechanism. When considering how these projects are constructed, two points are important.

1. One or more of the mechanisms within the pilot will be inspired by the CEES case study mechanisms (or a mechanism from a third-party energy community). In most cases, this new mechanism will have been identified as a ‘gap’ or ‘need’ within the partner.
2. This case study mechanism might be complemented by other mechanisms that will make up a coherent energy poverty alleviation project. For instance, in the case where a partner is inspired by an Identify and Assess mechanism, this mechanism could be complemented by a Fund and/or Alleviate mechanism that complements the case study mechanism. Similarly, in a case where a partner is inspired by a Fund case study mechanism, this might be complemented by an Identify and Assess and/or Alleviate mechanism that works well with the Fund mechanism. In some cases, these



additional mechanisms are derived from the partner's established or existing practices, while in others they are new.

CEES aim and objectives

The aim of the CEES project is to support the development of energy solidarity actions – succinctly, actions by ECs to aid households struggling with energy poverty in their local communities – across the EU/UK. The CEES proposal states that ‘the overall objective of the CEES project is to identify, validate and refine strategies to tackle energy poverty through community energy mechanisms, thereby enabling and fostering their uptake and replication’.

This aim and overall objective are underpinned by several objectives, the following being most relevant within the context of this evaluation report³:

1. To bring together six ECs of various kinds to offer six case study mechanisms for energy poverty alleviation (see D3.1). To complement these with further promising energy poverty alleviation mechanisms from external energy communities (see D3.1) and a set of criteria for the selection of ‘promising mechanisms’ (see Appendix 1).
2. For the six ECs to use these materials in support of the conception and development of six new energy solidarity pilot projects featuring one or more of the promising ‘mechanisms’. The six ECs and their pilot projects are briefly described below (and comprehensively described in D6.1).
3. For the six ECs to implement the six energy solidarity pilot projects.
4. 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.
5. Led by University of Birmingham, to collaboratively design and conduct an evaluation of the six pilot projects, and to produce an evaluation report.
6. To draw on the evaluation findings and other materials to produce and disseminate an Energy Solidarity Toolkit, designed to support other ECs to develop and implement energy solidarity projects.

CEES pilot partners and pilot projects

This section briefly introduces the six CEES pilot partners, the case study projects and mechanisms that were brought to CEES and the new pilot projects and mechanisms that will be implemented in CEES (and will be evaluated through this evaluation framework). More comprehensive descriptions of the case study

³ The CEES project has two further objectives: to build understanding of regulatory and financial barriers and develop strategies to address them, and to empower other ECs to tackle energy poverty by scaling the uptake of the toolkit. These objectives are addressed in other project deliverables.

mechanisms are presented in CEES D3.1. More comprehensive descriptions of the pilot projects are presented in the CEES actions plans (D6.1).

ALLenergy

Serving rural west Scotland, [ALLenergy](#) works to promote sustainable energy use and renewable energy generation, to address energy poverty and reduce carbon emissions. ALLenergy has been working on energy poverty for more than 20 years. In CEES, ALLenergy's case study project is its [Affordable Warmth](#) programme. This programme features two mechanisms. First, an Identify mechanism – known as Professional Targeting – through which households are referred into the project by a network of local front line public and third sector organisations. Second, the Affordable Warmth programme features an Alleviate mechanism that relies on the provision of energy poverty support via telephone conversations and home visits.

ALLenergy's pilot project has the following structure:

New CEES mechanism:

- FUND: test and tailor microdonations mechanism (inspired by Enercoop) and – as necessary – investigate other fundraising mechanisms.

Expansion/improvement of existing activities:

- IDENTIFY + ALLEVIATE - SOFT (implementation of professional targeting and Affordable Warmth in a new geographical area and with a new team)

Coopernico

Based in Lisbon, Portugal, [Coopernico](#) is a renewable energy cooperative – the only one in Portugal – that promotes the involvement of citizens in urban renewable installations. Tackling energy poverty has been among Coopernico's aims since 2016 and it has been working directly on the issue since 2020. The case study mechanism that Coopernico has brought to CEES is a financial scheme by which its members provide low-cost loans to support charities to install renewable energy infrastructure.

Coopernico's *Gastar Bem a Energia* (Use Energy Well) pilot project has the following structure:

New CEES mechanisms:

- IDENTIFY: professional targeting through energy agencies, municipalities, civil parishes and senior universities (inspired by ALLenergy)
- ALLEVIATE – SOFT (inspired by ALLenergy and ZEZ):
 - Information on energy efficiency and accessing government support in workshops branded as energy cafés.
 - Home visits for energy efficiency improvements.

Enercoop and Énergie Solidaire

[Enercoop](#) is a French network of more than 300 renewable energy cooperatives. In 2008, Enercoop started [Les Amis D'Enercoop](#) to focus on environmental protection and energy poverty. One of Les Amis D'Enercoop's projects, [Énergie Solidaire](#), allows Enercoop's customers to make micro-donations through their bills to support work to alleviate energy poverty. This is the case study mechanism that Enercoop has brought to CEES.



Enercoop's Solidarity Taskforce pilot project has the following structure:

New CEES mechanism:

- ALLEVIATE - SOFT: a telephone-based energy poverty advice service (inspired by ALLenergy) with associated training.
- Supported by IDENTIFY AND ASSESS: participating households will be drawn from Enercoop customers who are in arrears on their energy bills.

Les 7 Vents

Based in rural Normandy, France, [Les 7 Vents](#) provides individuals and organisations with advice and support for projects on energy transition and sustainable lifestyles. 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) practices that, by mutual working with local tradespeople, volunteers and householders, enable energy-poor households to engage in energy efficiency refurbishment of their homes at a lower cost.

In CEES, Les 7 Vents' pilot project has the following structure:

New CEES mechanisms

- ALLEVIATE - HARD: roll-out of 3SR mechanism (inspired by Enerterre)
- To allow roll-out of 3SR, also implemented: IDENTIFY (referrals from Les 7 Vents energy advisors)
- FUND: test and tailor microdonations mechanism (inspired by Enercoop) and – as necessary – investigate other fundraising mechanisms.

Repowering London

Working in urban London, Repowering London 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. 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 advisors and delivering energy poverty advice and services – that emphasise in-depth community engagement and community-building.

The Repowering London CEES pilot project has the following structure:

New CEES mechanism:

- FUND: test and tailor microdonations mechanism (inspired by Enercoop) and – as necessary – investigate other fundraising mechanisms.

Expansion/improvement of existing activities:

IDENTIFY + ALLEVIATE – SOFT: a roadshow of public energy poverty events.

To maximise the value of the CEES evaluation, an externally-funded Repowering London project called *Home Monitoring for Wellbeing* – that is being implemented at the same time as the CEES project – will be evaluated as part of the CEES evaluation This project has the following structure:

- IDENTIFY: Building on relationships with local housing providers, households from two urban estates were invited to join.



- ALLEVIATE - SOFT: Households are provided with: feedback about energy consumption, internal temperature, internal humidity and other variables that affect wellbeing; tailored advice; and up to £1000 worth of measures.

ZEZ (Green Energy Cooperative)

Based in urban Zagreb, ZEZ assists citizens in the development of, investment in and use of renewable energy sources. The case study mechanism that ZEZ has brought to CEES is known as Energy Advisors. This is a programme to help young graduates or long-term unemployed secure qualification as energy advisors (a Train mechanism) who provide tips and advice on energy efficiency to homeowners (an Alleviate mechanism).

In CEES, the ZEZ [Ease Their Troubles](#) project has the following structure:

New CEES mechanism:

- FUND: test and adapt micro-donations (inspired by Enercoop).

Expansion/improvement of existing mechanisms:

- IDENTIFY: referrals from local partners (with inspiration from Allenergy).
- ALLEVIATE - SOFT: energy advisor training and home visit/energy kit programme.



2. CEES evaluation aims and principles

Core evaluation aims

1. To gain and share summative⁴ understanding and learning with respect to the following *processes*⁵ in the pilot projects, as appropriate.
 - a. The pilot mechanisms: Fund, Identify and Assess, and Alleviate (including training).
 - 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 summative understanding and learning with respect to the *impacts*⁶ 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 advisors.
 - f. Local partners/stakeholders⁷.

Evaluation principles

1. As was discussed earlier, each CEES pilot project typically comprises several mechanisms, one or more of which is inspired by a CEES case study mechanism, and others of which are those required to make a coherent energy poverty alleviation project. As was also discussed earlier, the individual mechanisms do not exist in isolation but instead are interrelated and mutually dependent. With this in mind, to ensure that these relationships and dependencies can be understood and shared as learning, it is important that the evaluation addresses all of the mechanisms within each pilot project. This approach is of value because it broadens the scope of the evaluation and therefore broadens the scope of the learning that can be shared within the CEES energy solidarity toolkit.

⁴ 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.

⁵ A process evaluation focuses on understanding what worked 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 Covid-19.

⁶ An impact evaluation provides information about the impact, outcomes or changes produced by an intervention - positive and negative, intended and unintended, direct and indirect.

⁷ These are the local partners/stakeholders with whom each pilot project management team collaborates to implement their pilot project)



2. To act as a *critical friend* to the pilot projects, providing formative⁸ feedback to help the pilot projects to be the best they can.
3. To conduct a 360° evaluation that draws on a range of different categories of voices. In CEES, these voices or sources of information are:
 - a. Pilot project management teams (who are sometimes also energy advisors)
 - b. Households
 - c. Trainees
 - d. Energy advisors (who may have also been trainees)
 - e. Local pilot project partners/stakeholders.
4. To employ consistent evaluation methods and tools across the six pilot projects, as appropriate.
5. 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 are often vulnerable).
6. To work within an appropriate ethical framework with respect to: participant informed consent, data management and storage, anonymity in reporting, energy advisor health and safety, and participant safeguarding, with ethical review and approval provided by the University of Birmingham ethics committee. Ethics are discussed in more detail below.

Evaluation objectives (EOs) and questions

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 will help us to answer the questions. It is important to note that:

- Not all of the EOs are relevant to all of the pilot projects and not all of the questions will be answerable in all of the pilot projects.
- Across the questions, some will be answered using quantitative data, some using qualitative data and some using a combination. This is discussed in more detail 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 ECs.
- Although EOs 2-4 are organized by Process and Impacts/outcomes, it is important to note that 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?

⁸ Formative evaluation and feedback is undertaken and provided *during* projects and is designed to support successful project implementation and delivery. Formative evaluation and feedback can be relatively informal.

3. What areas of activity does each organisation work in?
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 was 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 and assess mechanisms.

1. Processes
 - i. What were the *pre hoc* plans for the implementation of the Identify and assess 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 and assess 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 and assess 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 attrition⁹ took place during the Identify and assess mechanism? What were the reasons for this?

⁹ Attrition is the loss of study units (in this case, households) from the units that started a project or programme.

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 (N.B.: These questions will be answered in different ways depending on the details of each Alleviate mechanism)
 - 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 are 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 advisors
 - a. How many energy advisors were there? What energy advisor attrition took place, if any? What were the reasons for this?
 - b. What were the experiences of the energy advisors when they were delivering the Alleviate mechanisms?
 - c. What are the impacts on energy advisors' confidence, skills and know-how, CV and employability?



- d. What are the experiences of energy advisors 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? What roles did they play?
 - b. 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 ECs?

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 an organisation 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 ECs 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 ECs 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?

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. Evaluation design and methods

Evaluation design

The evaluation design is constructed to respond to the EOs, as described above, within the following conditions:

1. While the evaluation materials are prepared by the evaluation team, much of the data collection will be implemented locally by the pilot project teams. This means that the evaluation design needs to balance the need for evaluation data with the burden that its collection places on the pilot project teams.
2. The evaluation design also needs to balance the need for data collection with the burden that this places on participants, particularly households (taking account of the vulnerabilities that are often associated with energy poverty).
3. While much of the data collection needs to be in the language of each pilot country, data then needs to be workable in English for the purposes of analysis and reporting. This influences the choice of methods, as we would not be able to handle large amounts of qualitative data in several different languages.
4. The evaluation design needs to be applied consistently across the six pilot projects. The purpose of this is to produce a consistent evaluation report and to avoid over-burdening the evaluation team.

Considering these conditions, the evaluation will follow a mixed methods design, combining:

1. Qualitative interviews with pilot project teams.
2. Informal information gathering in project meetings and from project documents.
3. Quantitative surveys with a variety of purposes:
 - Baseline (pre-intervention) and follow-up (post-intervention) surveys for householders
 - Event survey for householders
 - Survey for trainees
 - Survey for energy advisors
 - Survey for local pilot project partners/stakeholders
4. Project progress monitoring by partners.
5. Documentary analysis.

These evaluation methods are described in detail below.

Evaluation objectives/methods matrix

The evaluation design can be encapsulated in a EOs/methods matrix, see Table 1 over the page. This shows the range of evaluation methods that will be employed and cross-references them with the EOs that they help to answer.



	EO1: Partner and pilot process descriptions	EO2: Fund mechanisms	EO3: Identify and assess mechanisms	EO4: Alleviate mechanisms	EO5: CEES processes for knowledge sharing	EO6: Impacts and legacy for partners	EO7: Impacts for local partners/ stakeholders
Interviews with pilot project teams							
Informal information gathering							
Quantitative surveys							
Progress monitoring by partners							
Documentary information and analysis							

Table 1. Evaluation objectives and evaluation methods matrix.

Ethical framework

The evaluation methodology, processes, data collection instruments and data storage arrangements were reviewed and approved by the University of Birmingham ethics committee in July 2022. Informed consent to the ethical framework will be secured from *all participants in all categories of participants* prior to participation in the evaluation. The ethical framework has the following key features:

1. Participation in the evaluation is voluntary and participants can participate in the pilot projects but not the evaluation, if they wish.
2. Participants can stop participating at any time and miss out any questions they do not want to answer.
3. Participants can ask for their data to be deleted up to one month after participation by contacting the pilot project team ¹⁰.
4. All data is securely held and used in accordance with the EU General Data Protection Regulation (GDPR). In practice, data is collected, stored and shared in Microsoft environments (such as Forms and OneDrive), as specified by University of Birmingham. Additional security measures are in place when data is collected on paper surveys.
5. Data is not shared with anyone outside of the CEES team, except where consent to do so is given, and is used for evaluation purposes only.
6. All data is reported anonymously (except for some interview comments by pilot project teams, for which specific permission was secured).
7. As appropriate, all of the pilot partner teams commit to setting-up policies and processes for the health and safety of their employees and the safeguarding of the participants in their pilot projects.

Qualitative interviews

Qualitative interviews will be central to gathering data and information from the pilot project managers and will be used to gather data across the EOs. Four formal qualitative interviews will be carried out with each pilot project management team in:

1. December 2022/January 2023
2. April/May 2022
3. September 2023
4. January 2024

Interviews 1-3 will be conducted according to an initial interview protocol focusing on a review of the learning, progress and challenges in the previous three/four months and a preview of objectives for the coming three/four months. The final interview will feature additional focus on assessing the sustainability and legacy of the learning and practice that has taken place within each energy community. The two interview protocols are in Appendix 4. With respect to the FUND element of the evaluation, the interviews will be supported by a pro-forma templates for recording the financial detail (also in Appendix 4).

¹⁰ The relatively limited period of one month was used because data that was collected later in the project was to be analysed promptly after its collection.



Consent forms will be completed for all interview participants on the basis of a participant information sheet (see Appendix 4). Interviews will be conducted and recorded in Zoom and will be professionally transcribed. The interviews will be transcribed and analysed according to the principles of thematic analysis (Braun and Clarke, 2006), such that key themes emerge from the data itself and in answer to the evaluation questions.

Informal information gathering

With the objective of gathering data across the EOs, the formal interviews will be complemented by data and information gathering in less formal contexts, including:

- Ad hoc one-to-one meetings in Zoom (recorded by note-taking and in meeting reports).
- Fortnightly team meetings in Zoom throughout the project (recorded by note-taking and in minutes).
- WP6 team progress meetings in Zoom, every four weeks from January 2023, to discuss progress and exchange advice and knowledge regarding the pilot projects. These meetings will be recorded in Zoom and participant consent will be secured (based on a similar consent form to the formal interviews mentioned above).
- Face-to-face consortium meetings, approximately every six months (recorded by note-taking and in minutes).
- Internal project documents
- Email exchanges and in response to email queries

Some of the information that will be gathered in this way will be integrated into the thematic analysis described above. Other, more factual information will be used in the more descriptive aspects of the evaluation (such as the pilot project processes and timetables).

Quantitative surveys

Introduction

As indicated in Table 1, quantitative surveys will be used to gather data from several different sources and across several EOs. The following surveys will be employed in the evaluation:

- Baseline (pre-intervention) for householders
- Follow-up (post-intervention) surveys for householders
- Event survey for householders
- Survey for trainees
- Survey for energy advisors
- Survey for local pilot project partners/stakeholders



The surveys are designed to yield quantitative data primarily. At the same time, the surveys feature open text questions, as appropriate. Creation of the various surveys was led by University of Birmingham, with input from the pilot project teams. The English language versions of the surveys are in Appendix 4. As appropriate, English language surveys will be translated into Croatian, French and Portuguese using the Translate function in Microsoft Word followed by review and correction by the pilot project teams. The surveys will be set up in Microsoft Forms and/or on paper, as required.

The surveys will be implemented via a range of approaches, depending on the audience for the survey, the specifics of the pilot project and the preferences of each pilot project team. The objectives of each survey and the various data collection methods are described below. The English language versions of all the surveys are in Appendix 5.

Household surveys (responding to EO4)

Objectives

There are three surveys for households:

- **Baseline survey**
 - To gather data about the household and property to identify possible differences in impacts.
 - To gather data about experiences of energy poverty (to be compared with the same data in the follow-up survey).
- **Follow-up survey**
 - To gather data about experiences of energy poverty (to be compared with the same data in the follow-up survey).
 - To gather data about experiences of the project.
- **Event survey**
 - To gather data about experiences and impacts of individual energy advice ‘events’ (typically: telephone call, workshop or home visit).

The data will be collected in a variety of situations (on the telephone, in workshops, in home visits) using a variety of methods (on paper, directly into Microsoft Forms). Where data is collected on paper, data entry into Microsoft Forms will be undertaken by the pilot teams.

Trainee survey (EO4)

Objectives

- To understand impacts of the training sessions and the experiences of the trainees.

This survey will be deployed in the three pilots that involve training: Allenergy, Enercoop and ZEZ. This data will be collected at the end of each training event. The data will be collected either on paper or directly into Microsoft Forms. Where data is collected on paper, data entry into Microsoft Forms will be undertaken by the pilot teams.

Energy advisor survey (EO4)



Objectives

- To understand the experiences of the energy advisors, for instance when they are working with householders (see detail in EO4).

This survey will be deployed across the six pilots. In some cases, the energy advisors are also the project managers (Coopernico, Les 7 Vents, Repowering London) and in others the energy advisors are also trainees (Allenergy, Enercoop, ZEZ). This data will be collected at the end of the project implementation. The data will be collected either on paper or directly into Microsoft Forms. Where data is collected on paper, data entry into Microsoft Forms will be undertaken by the pilot teams.

Local partner/stakeholder survey (EO6)

Objectives

- To understand the impacts and experiences of acting as a local partner/stakeholder in the CEES pilot projects (see more detail in EQ6).

This survey will be deployed across the three pilots that worked with local partners/stakeholders (Allenergy, Coopernico and ZEZ). This data will be collected at the end of the project implementation. The data will be collected either on paper or directly into Microsoft Forms. Where data is collected on paper, data entry into Microsoft Forms will be undertaken by the pilot teams.

Analysis

Analysis of the quantitative surveys will be undertaken in Microsoft Excel and IBM SPSS. Analysis will focus on the use of frequency data and descriptive statistics. In the case of the baseline and follow-up household surveys, where sample sizes allow, a non-parametric, matched pairs test for difference will be used to test for differences between the baseline and follow-up datasets. Tests for difference will also be used to explore differences within the data, for instance, relating to gender, age, long term illness/disability, employment and single parent households, where data allows.

Progress monitoring data

All the project pilot teams will set up their own systems for recording and monitoring the progress of households through their pilot project, for example noting the dates on which energy advice events took place. Some pilot project teams will use Microsoft Excel and others will use a Customer/Client Management Systems (CMS). This part of the monitoring data will be shared on an anonymised basis with University of Birmingham – sometimes as raw data and sometimes as consolidated data – and will be used to ascertain basic project information, such as the number of households that attended particular events and to identify any attrition at key points in the pilot project processes.



In addition, pilot project teams will use these systems for collecting and storing householder names and contact details. For ethics and GDPR reasons, this data will not be shared with UoB or other CEES partners and will not be used in the evaluation. Monitoring data and the three householder surveys for each household will be linked using a unique ID number for each household.

Documentary information

The evaluation will rely on various forms of documentary evidence, including D3.1 (the partner case studies), D6.1 (the pilot action plans), and the online CEES document for recording project progress.

Evaluation methods and pilot projects

The evaluation methods described above will not all be relevant to all of the pilot projects. For instance, not all the pilot projects will have trainees and not all of the projects will have external partners/ stakeholders. The way in which the different evaluation methods will be employed across the six pilot projects is shown in Table 2.

	AlIenergy	Coop-ernico	Enercoop	Les 7 Vents	Re-powering	ZEZ
Pilot project team interviews						
Informal information gathering						
Baseline survey						
Follow-up survey						
Event survey						
Trainee survey						
Energy advisor survey						
Local partner/stakeholder survey						
Documentary information						

Table 2. The evaluation methods and the pilot projects.

Evaluation schedule

The evaluation schedule is shown in Table 3. N.B.: the end date of the CEES project has been extended by three months, from end of May 2024 to end of August 2024.



	2021	2022				2023				2024		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3 ¹¹
Development of Evaluation framework	■						■	■				
Prep. of materials in English and ethics		■	■									
Preparation of evaluation materials				■	■	■	■	■	■			
Pilot project team interviews (EO1, 3-6)					■	■	■	■	■	■		
Informal information gathering	■	■	■	■	■	■	■	■	■	■	■	■
Baseline survey					■	■	■	■	■	■		
Follow-up survey						■	■	■	■	■		
Event survey					■	■	■	■	■	■		
Trainee survey						■		■				
Energy advisor survey										■		
Local partner/stakeholder survey										■		
Pilot project monitoring					■	■	■	■	■	■		
Analysis and reporting									■	■	■	■

Table 3. The evaluation schedule.

¹¹ July and August only.

Appendix 1: Criteria for the selection of promising practices or ‘mechanisms’

Introduction

The purpose of this section is to present a set of criteria for the selection of promising practices for successful energy solidarity projects, that could be inspiring for other energy communities, and / or included in the CEES toolkit. We have used the term ‘promising practices’, rather than ‘best practices’ or ‘good practices’, for several reasons:

1. The terms ‘best practice’ and ‘good practice’ imply a kind of binary situation in which practices can be readily identifiable as either ‘best’ or ‘not best’, or ‘good’ or ‘bad’. In practice, the situation is more nuanced than this, and
2. What counts as ‘best practice’ or even ‘good practice’ is likely to be highly context dependent, based on a range of factors (for instance, local legislative contexts, national definitions of energy poverty (where they exist), local climate, other local work on energy poverty alleviation and local social norms).
3. Further, each practice is likely to have a set of associated advantages/strengths and disadvantages/weaknesses (and these may vary according to the context).
4. Within the specific context of understanding the impacts of energy poverty alleviation projects, the literature is rather limited and there is a dearth of evidence that would allow conclusions to be drawn regarding what practices are ‘best’ (See D2.2).
5. Further, there are indications in some of the academic literature that *how* a project is implemented – for example with reference to styles of engagement with households in energy poverty – is likely to be as important as *what* is implemented (see D2.2). To put it bluntly, a ‘good’ practice can be implemented poorly. We have incorporated these insights into the criteria.
6. Finally, any given energy solidarity project will be made up of a number of practices of different types (see the typology below). It is important to emphasise that a successful project will rely on the success of all of the practices and the linkages between them.

This set of criteria for selection of promising practices has been developed based on: the expertise and experience within the CEES team; the case studies that were brought to CEES by the energy community partners (see D3.1); some insights from other energy communities (see D3.1); and some of the literature in D2.2.

The criteria are structured around a typology that is derived from the CEES proposal:

1. **Fund:** practices to fund or finance work on alleviating energy poverty.
2. **Identify and Assess:** practices to identify households in energy poverty, deliver them to the project and assess their eligibility for the project.
3. **Alleviate: soft and hard** practices to alleviate energy poverty (including training).





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



cees
COMMUNITY ENERGY FOR
ENERGY SOLIDARITY

Fund

Practices to fund or finance work on energy poverty.

Criteria

1. Promising practices for funding will have a track record of successful implementation.
2. They will be sustainable over the long term.
3. Promising practices for public donations will: make the issue clear, be flexible (in terms of amount and frequency of donation) and be appropriately targeted,
4. Promising practices for corporate sponsorship will, in addition, clarify what the corporate sponsor will get in return (for instance, mentioning the sponsor in promotional material).
5. Promising practices for micro-donation schemes will be manageable to set up.

Identify and assess

Practices to identify households in energy poverty and introduce them to the project.

Criteria

1. Promising practices will identify households in energy poverty (and distinguish these from households that are not in energy poverty) in a way that is practical and manageable for both the project team and the household, based on information that they are able to easily obtain/supply in most or all cases.
2. They will also identify households that meet any other eligibility criteria (and distinguish these from those that do not) in similarly practicable ways.
3. Promising practices may, but don't have to, draw on referral networks of other relevant third-party organisations, such as municipalities, housing associations, public social, health and care services, and third sector organisations working in these areas.
4. They will have a simple and easy to understand process for introducing eligible households to the energy poverty alleviation services.
5. Finally, promising practices for identifying households will have a track record of successful implementation.

Alleviate

Practices to alleviate energy poverty.

Criteria

1. Promising practices for energy poverty alleviation will be designed to produce a positive impact on the comfort and wellbeing of the household, and ideally, will have evidence of having done so.
2. They may include, *inter alia*, financial support through the project or third parties; energy efficiency advice; provision of energy saving devices; larger renovations.



3. Promising practices for energy poverty alleviation will often (but not always) involve collaboration with local partners or stakeholders (such as municipalities and other third sector organisations).
4. In terms of approach, they may involve, *inter alia*, home visits, telephone consultations, workshops, and face-to-face consultations in 'energy centres' in convenient public locations.
5. They should be accessible to a range of households in energy difficulty, unless targeted to specific sub-groups. If targeted, this should be well justified.
6. Promising practices to alleviate energy poverty will be delivered to households in ways that build householders' trust, motivation and agency
7. Promising practices for energy poverty alleviation will be delivered by people who are appropriately trained and who ideally have actively chosen to work on the project.
8. They will appropriately balance the positive relationship between the depth of the engagement with each household (i.e.: the investment of time and materials and the cost of these in each household) and the likely impact on each household.
9. Advice-based practices will support 'energy know-how'. This requires advice that is practical, easy to understand and implement and tailored to the individual household.
10. Promising practices for energy poverty alleviation will most likely feature more than one moment of, or opportunity for, engagement. This will allow trust to develop, and it will allow householders to try things out and ask further questions, and for the energy advisor to respond to new questions and to repeat advice.

Further criteria with respect to training energy poverty advisors

1. Promising practices to train energy advisors will include some or all of the following topics/features, as appropriate:
 - a. Approaches to energy poverty alleviation, including: energy efficiency, understanding energy bills, dealing with energy suppliers, hard measures.
 - b. Appropriate engagement and communication skills for working with potentially vulnerable people.
 - c. Local grant and voucher schemes for 'cash' support and hard measures.
 - d. The process of the project, this might also be referred to as the 'household journey'.
 - e. The process for monitoring the progress of each household through the project process.
 - f. The processes for evaluating the project, especially the role of the energy advisors in this.
 - g. The policies and processes for energy advisor health and safety, especially when conducting home visits.
 - h. The policies and processes for safeguarding, with respect to participating households.
2. Promising practices for training will enhance the wider and employability skills of trainees.
3. They will have means of selecting appropriate trainees, and excluding inappropriate applicants, especially where they may be alone with vulnerable households.
4. Finally, these practices will have a track record of successful implementation.



Appendix 2: Energy poverty: definitions and indicators

Definition of energy poverty

As discussed in Chapter 1, drawing on the 'capabilities' approach of Day *et al.* (2016)¹², we use the following definition of energy poverty in CEES:

Energy poverty is a 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 wellbeing, relationships, social inclusion, employment, recreation and education).

This definition is closely aligned with the most recent EU definition of energy poverty:

'Energy poverty is a situation in which households are unable to access the essential energy services, such as adequate warmth, cooling, lighting, and energy to power appliances, which underpin a decent standard of living, health and social inclusion.'
(EC 2020, paragraphs 1 and 2: 1).

Like the EC definition, the CEES definition explicitly includes both energy services and the elements of human flourishing ('capabilities') that are underpinned or facilitated by energy services. The key difference between the two definitions is that the CEES definition explicitly includes a wider set of capabilities (e.g. including relationships, employment, recreation and education). This is a deliberately multi-dimensional view of energy poverty, that encourages us to see the various impacts that energy poverty can have on people's lives, and to be able to recognise energy poverty through these impacts.

This definition is particularly helpful in an evaluation because it allows the inclusion of more indicators of energy poverty (i.e.: indicators of lack of access to energy services and indicators of a lack of human flourishing).

Alternative definitions of energy poverty, and approaches to its measurement, abound. Some focus on the proportion of income that a household would need to spend to satisfy reasonable fuel needs, for example, the definition of fuel poverty used in Scotland (Scottish Parliament, 2019). However, this definition is difficult to use in research and evaluation because it involves estimating what households would need to spend, depending on the efficiency of their home, rather than what they are spending. This approach is sometimes simplified by looking at how much households actually spend on fuel, but this requires access to their energy bills which can be difficult to obtain as householders may be unwilling to share financial information and / or

¹² The 'capabilities' approach emphasises, 'That the focus of social and economic development should be on wider human flourishing, and on what people can achieve and do' (Day *et al* 2016: 258, after Amartya Sen and Martha Nussbaum).

may not keep copies of their bills. In any case, in the CEES evaluation, we prefer a definition that focuses on what a household is or is not able to achieve in their energy situation. At the same time, we have included attention to the level of difficulty in paying energy bills that householders report they experience.

Other recent academic definitions of energy poverty have focussed on the energy services that a household can access and afford (e.g. see: Bouzarovski and Petrova, 2015; Sareen et al, 2020). Our approach aligns with these definitions, by incorporating consideration of access to services, but it extends this to also consider the elements of human flourishing (capabilities) that energy services underpin and which are the ultimate goal of households in accessing energy and energy services.

Indicators

The following are indicators of energy poverty and indicators of vulnerability to energy poverty that align with our definitional approach and which it will be possible to ask questions about in a survey that is not overly burdensome for the householder or the pilot teams.

- Dimensions of vulnerability to energy poverty
 - Presence of young people in the household
 - Presence of older people in the household
 - Presence of adults with long-term health conditions or disabilities in the household
 - All female households (adults)
 - Lack of employment in the household
 - Single-parent households
 - Lack of knowledge or know-how (see Burchell et al 2015) of how to:
 - Access support with energy poverty
 - Access other support services (social, health, employment)
 - Switch tariffs
 - Deal with energy companies
 - Use domestic energy saving devices
 - Access professional energy efficiency grants
- Dimensions of energy poverty
 - Ability to pay energy bill
 - Level of access to energy services:
 - Thermal comfort
 - Hot water
 - Lighting
 - Cooking
 - Refrigeration
 - Washing machine
 - IT for work and study
 - Entertainment
 - Adverse impacts on elements of human flourishing ('capabilities'):



- Physical health
- Mental health
- Family life
- Ability to study/work
- Ability to have privacy
- Ability to have a social life in the home
- Ability to have social relations outside of the home
- Ability to participate in broader society (cultural and political life)



Appendix 3: Energy solidarity: definitions and indicators

Definition

During the CEES project, the University of Birmingham team has conducted a review of the literature on solidarity and, on the basis of this literature¹³, developed the following broad-based definition of energy solidarity:

Energy solidarity is present when 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)

This definition aligns the concept of energy solidarity with wider concepts of solidarity and provides academic robustness. It also enables application at different scales. For instance, the term ‘energy solidarity’ has been used within the EU since 2006 to refer to the need for EU member states to act in solidarity in the face of energy security concerns in the context of energy supplies from Russia (Roth 2011). Equally, it has been used by some actors within the European energy community sector (Rescoop.eu, 2023; REScoop PLUS, 2018; Énergie Solidaire, 2023) to refer to action at community level. This definition can work for these different instances. Within the CEES project, we are focusing on action by energy communities.

Energy solidarity and energy communities

In the context of the CEES project, energy communities and others in their networks can be specified as the actors who are ‘willingly working in ways that align, on a shared goal of overcoming an energy-related adversity’, where the adversity is the energy poverty experienced by some households in their wider communities. Further, unsustainable energy sources and the need for a just energy transition could be identified as elements of energy-related adversity in some contexts.

A key feature of the energy solidarity approach is that it positions the energy poor household as one of the actors, with agency: they are engaged in their own struggle against energy related adversity, and energy solidarity brings in other actors to work together with them on addressing this adversity. This is different from approaches that cast the energy poor household as passive recipients of help. Energy solidarity emphasises

¹³ In particular, see: Sangiovanni (2015) and Kneuer et al (2022), as well as Rippe (1998), O’Neill (2002), Gould (2007) and Taylor (2015).

empowerment, and egalitarian relationships. Reciprocity is implicit: those who receive help, once they have gained some stability, may go on to help others in their community.

Energy communities can be an actor, working alongside those in energy poverty. They can also facilitate wider networks to bring others to act in solidarity with those in energy poverty. For example, by bringing in funders, volunteers to help with advice and labour, other referral organisations.

Within the CEES project, we have identified the following key points about energy solidarity in practice, when it is practiced by energy communities:

- **Engaging with those in energy poverty:** Showing empathy and respect to those living in energy poverty is critically important, particularly in contexts where the issue is not well understood or adequately addressed by other actors (including governments).
- **Raising awareness of why energy poverty exists and its impacts:** Often, energy poverty is perceived – by both actors and people affected – as a personal matter. Energy communities can play a key role in helping all parties, and the wider community, to understand that it results from multiple factors linked to financial and infrastructural systems, and also boost understanding of the impacts and wider costs of energy poverty.
- **Creating local energy solidarity networks:** Energy communities can help establish the local networks that build effective solidarity to address energy adversity, and more broadly promote community inclusion, cohesion and agency. For example, by bringing in funders, donors of goods, volunteers, and other professional organisations.
- **Leading equitable and fair clean energy transitions:** Beyond establishing and/or operating systems that help communities move to renewable energy sources, energy communities work on both renewable energy generation and on energy poverty alleviation can cascade wider benefits to community members, for example through strengthening local supply chains, imparting new skills and confidence to volunteers. This helps to build equity and justice into the energy transition.
- **Creating wider energy community networks for energy solidarity:** As individual energy communities build up experience across these areas, establishing local, regional, national and pan-European networks to promote the sharing of knowledge, skills and resources will support rapid deployment of good practices. This is solidarity scaled-up, whereby energy communities are working together on the shared goal of addressing energy adversity in their communities. The example of REScoop.eu and the CEES project itself demonstrates that such connections are highly valuable to all involved.

Indicators

Indicators of energy solidarity in energy communities

- Community-based actions to recognise and promote community awareness of energy poverty, particularly group activities.
- Community-based actions to alleviate energy poverty, particularly group activities.
- Provision of advice and support to those experiencing energy poverty, for example help with applying for grants and benefit entitlements; showing empathy and care.
- The use of community renewable energy receipts to support work on energy poverty.



- Setting up community sharing schemes, e.g. relating to energy demand reduction, or appliance sharing
- The payment of micro donations by customers of community renewable energy schemes to support work on energy poverty.
- Securing donations of money, materials, or other resources from local organisations, to further work on energy poverty alleviation
- Community-based volunteering opportunities related to energy poverty alleviation and / or equitable energy transitions.
- Local employment opportunities related to energy poverty alleviation and / or equitable energy transitions.
- Associated training and development work, possibly focusing on people who are 'far from the 'labour market'.
- Partnering with other local professional organisations to identify or help those in energy poverty.
- Participation in regional, national and international networks, projects (e.g. CEES) and events for community energy organisations, in relation to furthering work on energy poverty alleviation and just transitions.

Energy solidarity indicators at household level:

- Participation in community events related to energy poverty and / or just transitions.
- Outcomes:
 - Feeling respected and understood
 - Feelings of community
 - Feelings of inclusion and belonging
 - Feelings of pride in the community



Appendix 4: Partner interview materials

Materials for WP2 partner interviews

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.



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.



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.	



The interviewee has consented for <i>unattributed/anonymous</i> 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.	

Income proforma relating to the pilots that worked on funding mechanisms

Month	Amount raised					
	Type	Etc	Etc	Etc	Etc	Etc
Jan-23						
Feb-23						
Mar-23						
Apr-23						
May-23						
Jun-23						
Jul-23						
Aug-23						
Sep-23						
Oct-23						
Nov-23						
Dec-23						
Jan-24						



Appendix 5: 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 that was specific to the pilot projects has been anonymised. 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 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			
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
 [] 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 wellbeing						
	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	
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	
	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 Wellbeing 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
 - [] 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 wellbeing						
	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	
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	
	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 Wellbeing 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.**



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



cees
COMMUNITY ENERGY FOR
ENERGY SOLIDARITY

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.						
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 event 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. 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 Allenergy 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 Allenergy 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.

	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 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

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.



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



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

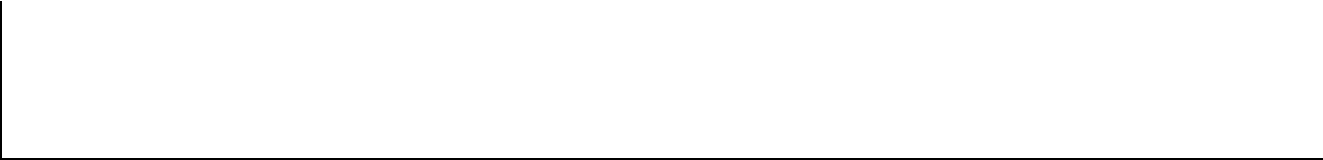
What do you think were the main benefits or achievements of the project, if any? Please use the box below

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.

If there is anything 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.



cees
COMMUNITY ENERGY FOR
ENERGY SOLIDARITY

References

- Bouzarovski, S. and S. Petrova (2015) A global perspective on domestic energy deprivation: Overcoming the energy poverty–fuel poverty binary, *Energy Research & Social Science* 10: 31–40.
- Braun, V. and V. Clark (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3(2): 77-101.
- Burchell et al (2015) What is energy know-how, and how can it be shared and acquired?, *ECEEE Energy Efficiency Summer Study*, June 1-6, Hyeres/Toulon, France.
- Callaghan, G. and D. Williams (2014) Teddy bears and tigers: How renewable energy can revitalise local communities, *Local Economy*, 29(6–7): 657–674.
- Community Energy England (2022) *State of the sector report, 2022*, <https://communityenergyengland.org/pages/state-of-the-sector>.
- Day, R. et al (2020) Conceptualising energy use and energy poverty using a capabilities framework, *Energy Policy*, 93: 255–264.
- Day, R. and K. Burchell (2023) Energy solidarity in Energy Communities alleviating energy poverty and supporting just energy transitions through solidarity approaches, Energy, Environment and Societies in Crises: ESA RN12 mid-term and Energy and society Network 6th international joint conference, 6-8 September 2023, Trento, Italy.
- Énergie Solidaire (2022) Our vision, <https://www.energie-solidaire.org/qui-sommes-nous/>.
- EU (2020) Commission recommendation (EU) 2020/1563 of 14 October 2020 on energy poverty, Official Journal of the European Union, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020H1563>.
- European Commission (2022) *In focus: Energy communities to transform the EU's energy system*, 13 December 2022, https://energy.ec.europa.eu/news/focus-energy-communities-transform-eus-energy-system-2022-12-13_en#:~:text=Overcoming%20barriers%20to%20decentralise%20energy%20in%20the%20EU&text=However%2C%20they%20are%20still%20a,in%20operation%20across%20the%20EU.
- Eurostat (2022) Inability to keep home adequately warm - EU-SILC survey, https://ec.europa.eu/eurostat/databrowser/view/ILC_MDES01_custom_1485289/default/table?lang=en.
- Gould, C. (2007) Transnational Solidarities, *The Journal of Social Philosophy*, 38(1): 148–164.



- House of Commons Library (2023) Research Briefing: Fuel poverty in the UK, 24 March 2023, <https://commonslibrary.parliament.uk/research-briefings/cbp-8730/>.
- Kneuer, M., M. Corsten, H. Schammann, P. Kahle, S. Wallaschek and F. Ziegler (2020) Claiming solidarity: A multilevel discursive reconstruction of solidarity, *European Journal of Social Theory*, 25(3) 366–385.
- O’Neill, O. (2002). *Towards justice and virtue. A constructive account of practical reasoning*, Cambridge University Press.
- Rippe, K. P. (1998) Diminishing Solidarity, *Ethical Theory and Moral Practice*, 1(3): 355–73,
- Roth, M. (2011) Poland as a Policy Entrepreneur in European External Energy Policy: Towards Greater Energy Solidarity vis-à-vis Russia?, *Geopolitics*, 16(3): 600-625.
- REScoop.eu website (2018) Energy communities and energy solidarity, session at REScoop.eu international conference/REScoop PLUS national workshop, 21/06/18, Milan, <https://www.rescoop.eu/news-and-events/events/energy-communities-energy-solidarity-mare-culturale-urbano>.
- REScoop PLUS website (2022) *Energy solidarity* <https://www.rescoop-ee.eu/energy-solidarity>.
- Sangiovanni, A. (2015) Solidarity as joint action, *Journal of Applied Philosophy*, pp340-359.
- Sareen et al (2020) European energy poverty metrics: Scales, prospects and limits, *Global Transitions*, 2: 26-36.
- Scottish Parliament (2019) Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019, <https://www.legislation.gov.uk/asp/2019/10/enacted>.
- Taylor, A. (2015) Solidarity: Obligations and Expressions, *The Journal of Political Philosophy*, 23(2): 128–145.

