Workshop guide: energy efficiency in the home

Rather than being intended as blueprints for the delivery of the workshop, the resources found in this guide are provided as examples, based on learning from the workshops delivered as part of the Oldham Energy Futures project. Delivery teams should draw inspiration from the resources below and found in the supplementary guide: workshop elements in order to develop their own session plans and activities.

Oldham Energy Futures

This workshop builds knowledge in a neighbourhood group around ownership and decision-making, in relation to energy transition solutions. It has a specific focus on developing understanding on who shapes and owns the energy system at the neighbourhood level, what this means for people day-to-day and how alternatively-owned solutions can contribute to the energy transition.

In this guide

Workshop plan

	9.45am	Registration
	10.05am	Opening • short welcome • housekeeping • check in with how people are feeling • reflection on the previous session • outline of today's workshop.
	10.30am	Session 1: warm, healthy, low carbon homes
	12.30pm	Lunch
	1pm	Session 2: diagnosing home energy efficiency across the neighbourhood
	1.45pm	Session 3: fuel poverty personas
	2pm	Session 4: mechanisms for change
	2.30pm	Session 5: reflection

how this impacts me

how this impacts the community

building understanding

mechanisms for change

Oldham Energy Futures

Session 1: warm, healthy, low carbon homes

120 minutes

Interactive presentation

The facilitator for this session should have expertise in home energy, retrofit and clean energy systems. They should have a clear focus on learning and engagement techniques to support participants to navigate the more technical elements of this topic.

Following this session, participants will:

- understand the importance of energy efficiency in their homes as part of the energy transition
- be able to identify various measures for saving energy in their homes, appropriate to their budgets, lifestyles and priorities
- be able to complete a basic assessment of existing energy saving measures at home, and plan for future possible improvements
- have direction to trusted sources of information for practical details of how to implement measures
- be able to identify opportunities for switching to cleaner power systems at home
- be aware of examples where energy efficiency measures are being delivered by businesses which benefit the local economy.

You will need:

- a projector/tv to connect to laptop
- sound if showing video or audio.

If possible, use:

- physical handouts
- thermal imaging cameras
- insulation materials.

Oldham Energy Futures

Session 1: warm, healthy, low carbon homes

length
format
facilitator
outcomes
resources
content
data to gather
tips
examples of use

This session introduces very basic building energy theories.

Participants will be introduced to three potential directions for the future of homes – cold, super smart and retrofitted – along with the costs and benefits of each option.

Energy and carbon saving measures will be explored from five different angles:

- insulation
- airtightness and quality
- heating systems
- cleaner energy systems
- energy storage.

Heat loss in homes via conduction and convection will be introduced. Action at home will be covered at three different levels:

- behaviour changes
- DIY measures
- professional measures.

This will give a broad grounding with different levels of access to engage with the content. Through exercises, participants should be encouraged to think about their own comfort and occupancy patterns, as well as planning energy saving measures that they can implement.

Record data on:

- issues participants have in their homes in relation to energy efficiency
- participants observations of the quality of housing in the neighbourhood
- levels of enthusiasm for further knowledge or understanding about energy efficiency in the home.

Oldham Energy Futures

Session 1: warm, healthy, low carbon homes

length
format
facilitator
outcomes
resources
content
data to gather
tips
examples of use

The workshop should be interspersed with questions to the group which can prompt discussion and help highlight where people already have an understanding of the subject matter. This type of content-driven presentation is important to give the group a firm understanding of what measures are needed for energy efficiency. Use hands-on examples and stories. Ask participants to give examples and share what they already know.

You can find example slides with images and diagrams to show how Oldham Energy Futures presented this workshop here. Facilitators should create their own workshop content, drawing on these slides as a source of inspiration.

As part of Oldham Energy Futures the team recorded the presentation given to the group members. This presentation can be used to outline the structure of one developed specific to a different CLEP process. The presentation has been broken down into more digestible segments:

- Fabric First and heat loss in the home
- how to stop losing heat from our homes
- ventilation.

Oldham Energy Futures

Session 2: diagnosing home energy efficiency across the neighbourhood

length
format
facilitator
outcomes
resources
content
data to gather
tips
examples of use

50 minutes

Interactive presentation and follow-up conversation

The facilitator for this session should have a good understanding of housing typologies and EPC ratings. Additional facilitators will be needed for group work.

Following this session, participants will:

- understand what EPCs are, their uses and their limits
- be able to learn about the EPC of their home
- have a shared understanding of the varying energy performance of homes across the neighbourhood.

You will need:

- information about the different housing typologies in the area, drawn from the neighbourhood profile
- example EPC rating charts
- three maps with individual building footprints from different parts of the neighbourhood
- EPC information for the neighbourhood
- coloured pens to correspond with EPC ratings.

This is a discussion-based activity where the group has the opportunity to learn about housing typologies and EPC ratings, what they are and what they mean. A mapping exercise is used to build a neighbourhood picture of EPC ratings, helping to visualise the state of housing in the neighbourhood and the need for retrofit.

Oldham Energy Futures

Session 2: diagnosing home energy efficiency across the neighbourhood

Cover the following:

- housing typologies for the area (see neighbourhood profile for more information)
- EPCs – what they are, their uses and limitations
- how to find out the EPC ratings for homes
- comparison of homes in the neighbourhood, using EPCs.

Record data on:

- stories about what it's like to live in energy efficient or inefficient housing in the neighbourhood
- key issues residents face and care about in relation to home energy efficiency.

The context and accuracy of EPCs needs to be addressed within this workshop. Individual EPCs are often inaccurate, so this activity should be viewed as a simple way of understanding wider energy patterns. It shouldn't be used to diagnose or specify specific energy improvements to homes within the workshop.

Similarly, EPCs are limited in how well they predict the carbon impact of heating a home as they make a judgement on the performance of a house based on cost rather than carbon impact. Cost is not a good estimate of carbon emissions because electricity (which is becoming less carbon intensive) is more expensive than gas (which is a more carbon intensive alternative). This means that homes with gas central heating systems and a solar array could achieve a high EPC, whilst insulated homes with a heat pump may not.

The best way for participants to get an accurate idea of the energy

Oldham Energy Futures

Session 2: diagnosing home energy efficiency across the neighbourhood

efficiency of their home is by booking a whole house retrofit assessment from a qualified organisation. See LETI's Climate Emergency Retrofit Guide for more information.

Ensure that any information referenced during the activity is available for the group as they engage in discussion.

You can find example slides with images and diagrams to show how Oldham Energy Futures presented this session here. Facilitators should create their own session content, drawing on these slides as a source of inspiration.

Oldham Energy Futures

Session 3: fuel poverty personas

length
format
facilitator
outcomes
resources
content
data to gather
tips
examples of use

15 minutes

Resource to prompt discussion

The facilitator for this session should have a good understanding of how poor energy efficiency can affect different households. This could be a facilitator from within the delivery team.

Following this session, participants will:

- understand how energy efficiency can affect the health and wellbeing of a household, as well as the social impacts of poor energy efficiency
- recognise that energy efficiency manifests in different ways across their neighbourhood
- understand that there are people in their community who are affected by fuel poverty.

You will need:

- a prepared selection of fuel poverty personas that relates to the demographics of the neighbourhood
- the information gathered in the neighbourhood profile to guide how the persona is developed. If deemed beneficial, facilitators could prepare multiple personas to engage the group across different scenarios relevant to their neighbourhood. The final personas should include information about who is in the household, the EPC rating of their home, and the housing typology.

This is a good session to lead after diagnosing home energy efficiency across the neighbourhood. Data from the neighbourhood profile can be used to demonstrate the quality of housing in the area, linking the discussion to the mapping exercise and what it feels like to live in a low EPC house.

Oldham Energy Futures

Session 3: fuel poverty personas

length | outcomes | data to gather
format | resources | tips
facilitator | content | examples of use

Talk through the facts of the persona and ask the group what they think living in this type of housing will mean for their family. Look for themes around poor health, energy bills, social impacts and any stories about people or homes the group are aware of in a similar position.

Ask the group what sort of changes they think could make a difference for the household.

Record data on:

- the extent to which the group is aware of these problems and how they appear in the neighbourhood.

This is a very good way to engage the group in conversations about fuel poverty but without describing it in those terms. Exploring the human impact of cold homes will help the group to consider why energy efficiency and energy in the home is important at a neighbourhood level, not just an individual level.

- Persona used in Westwood for Oldham Energy Futures
- Research from mPOWER, which illustrates six prepared personas, which can be used as the basis of personas for different areas:
  - older home-owner couple with worsening health and mobility
  - single older person in rented accommodation with worsening health
  - single parent and child(ren) in rented accommodation
  - large family in rented accommodation
  - family with a disabled family member in the household with a mortgage
  - young single person in rented accommodation.

Oldham Energy Futures

Additional learning resources

- Fabric First and heat loss in the home
- how to stop losing heat from our homes
- ventilation.

Good practice case studies

- South East London Community Energy (SELCE) energy advice service
- Carbon Co-op's People Powered Retrofit service, delivering whole house retrofit.

Oldham Energy Futures