



scottish universities  
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mobilising knowledge for a better Scotland



UNDERSTANDING FUEL  
AND TRANSPORT POVERTY  
AND ASSOCIATED  
CHALLENGES FOR A  
SCOTTISH JUST TRANSITION  
(FTP-SJT)

SUII KNOWLEDGE  
EXCHANGE PROGRAMMES

SUMMARY REPORT



## MAIN OBJECTIVES AND CONTEXT

To tackle climate change and reach net zero emissions targets, Scottish households will need to transition to low carbon heat and mobility. However, in Scotland, [1/4 of households experience fuel poverty](#) (i.e. not being able to afford their energy bills, having to under-heat their homes or reduce consumption otherwise) and [1/5 are in high risk of transport poverty \(i.e. not being able to afford transport costs, limiting access to work, education and/or other services\)](#). Moreover, the transition to low carbon systems, likely involving significant technology changes and cost (e.g. replacing petrol or diesel cars for electric vehicles), is expected to create further pressure on these vulnerable groups; which could grow as a result of the ongoing [energy cost crisis](#), pushing more into fuel and/or absolute poverty.

Policy makers recognise the importance to tackle fuel and transport poverty (e.g. see the [New Energy Strategy document](#)). However, current policies normally address these problems in isolation, potentially overlooking important links and joint challenges ([Martiskainen et al. 2021](#)); furthermore, policies in this area are usually top-down, with limited input from those disproportionately affected. There is a need to deepen our understanding of these interconnected issues to facilitate more effective and just policies.

This project aimed to help enable a just transition to low carbon heat and mobility in Scotland, by providing important insights through stakeholder and community engagement, taking a bottom-up approach to policy making and providing a voice to the communities from the start.

The objectives of this project were:

- To identify groups affected by fuel and transport poverty in Scotland.
- To assess what specific challenges/barriers these groups face.
- To explore the links/joint challenges of fuel and transport poverty.
- To start identifying potential solutions, from a citizens' perspective, to alleviate these challenges.

In addressing these we believe it will lead to long-term positive impact for vulnerable communities and society as a whole, as well as generating new follow up projects and research.

## AN ACCOUNT OF THE INSIGHTS RESULTING FROM THE PROGRAMME

There were two main activities developed as part of this research programme.

1. A literature review of the definitions, metrics and drivers of fuel and transport poverty for Scottish context.
2. Community engagement, in the form of four participatory workshops taken place across urban and rural locations in Scotland.

### Literature research

We developed a literature review to identify key drivers, definitions and metrics characterising fuel and transport poverty in Scotland (for the full review analysis, please see [Boyd et al., 2023](#)). Some key findings include:



- Fuel poverty in Scotland is a growing concern. Although the Fuel Poverty Act ([Scot Gov, 2019](#)) was recently introduced to formalise the national strategy, research suggests that the criteria for identifying vulnerable households will not adequately identify those in fuel poverty, as they are limited.
- Scholars have positioned transport poverty as sitting alongside fuel poverty as drivers overlap.
- The Scottish government policy proposing equitable and affordable transport does not intersect with that on fuel poverty and lacks recent data. Like fuel poverty, the government strategy to address transport poverty considers cost as the primary driver despite clear evidence in the literature that the issue is multidimensional with many contributing factors.
- The research literature suggests the existence of 'double energy vulnerability', that households are often vulnerable to both transport and fuel poverty for often overlapping reasons, and that risk-based assessments of vulnerability should guide indicators for both conditions.
- Using multidimensional indicators which take account of other non-expenditure-based factors may lead to better identification of fuel and transport poverty, allowing to mitigation of the negative consequences associated with both phenomena, including mortality.

### **Community engagement.**

We developed four participatory workshops:

- 1st and 2nd workshops: urban/suburban (Glasgow and Dundee)
  - Dundee workshop co-organised with Dundee city council, 02 December 2022
  - Glasgow workshop co-organised with EHRA (Easterhouse), 03 February 2023
- 3rd and 4th workshops: rural (Thurso and Castletown)
- Highlands workshops co-organised with the Caithness Voluntary Group – Thurso, 13 Feb 2023 and Castletown 14. Feb 2023

Workshop outcomes include:

- ranked list of challenges people face
- list of specific issues in their locality
- discussion of suggestions and potential solutions for these issues

Workshop methodology selected was Nominal group technique (consensus workshop). The structure of the workshop included: Introduction, participant round robin, discussion on the ranked list of challenges, look for consensus. We also developed a pre-workshop survey to obtain initial material for discussion, the survey included demographic information and a list of challenges/issues of fuel and transport poverty, based on available literature. The participants were asked to assess the importance of these challenges, using a Likert scale (1, very little importance – 5, very important), and space was available to add any other relevant issues/challenges not listed.



MAIN OUTCOMES AND IMPACT

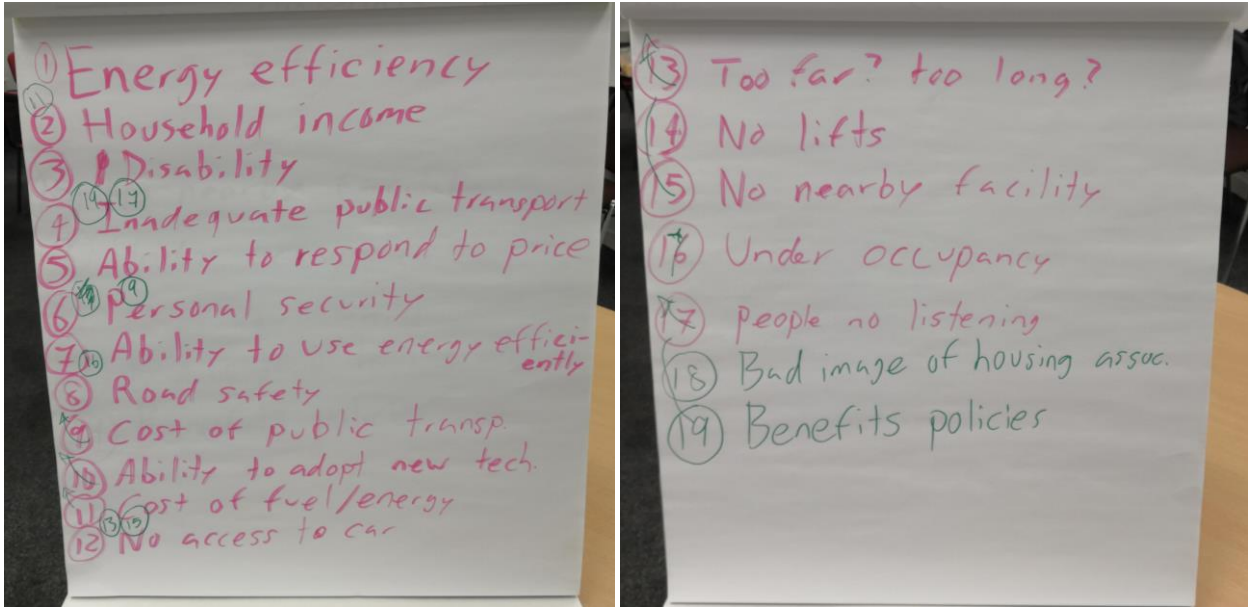


Figure 1. Example ranked list of challenges as main outcome from community engagement workshop (Glasgow).



Figure 2. Example word clouds from transcript of workshop discussions, showing the most frequently mentioned concepts (Thurso on the left and Castletown on the right).



### Key findings:

From our analysis we found common themes emerging across workshops, for example, regarding the importance of public transport, the role of the cost of fuel/energy, etc. However, clear differences can be seen, especially between urban and rural locations. For example, the role of personal safety was valued higher in urban settings; but the impact of distance, or travelling time, as a limiting factor to access work, education or other services was ranked higher in rural areas. Interestingly, the type of fuel and the payment method was another issue that was raised in rural areas; in particular for those using oil for heat in rural locations (not connected to the natural gas grid) where not only the cost of the fuel can be higher, but also it has to be bought on bulk and paid up front, which can be very challenging for those with less disposable income.

Our analysis also suggest that the joint challenges can be more complex and go deeper than what is commonly referred to in the literature. From the community engagement it was clear that there were similar overall challenges, but these impact people very differently, depending on location, housing situation, health/disabilities, income level, etc. This relates to what we found from our literature review, suggesting that single metrics may not capture all the nuances and complexities of these issues, also linking to the difficulty of defining and measuring transport poverty (due to the complexity and heterogeneity of issues).

### List of project outputs:

- Open-access peer-reviewed journal paper (published): [The Intersection of Fuel and Transport Policy in Scotland: A Review of Policy, Definitions and Metrics](#)
- Policy brief, focusing on the lit review findings, to be published at the [CEP website](#) and/or SUII website (completed draft attached. Formatting to be carried out and published in coming weeks).
- (extra) policy brief, focusing on the findings from community engagement, to be published at the CEP website (in preparation, to be finalised and published over the summer).
- (extra) research paper based on the findings of the community engagement workshops. (in preparation, to be completed during the summer)
- (extra) set of slides summarizing outputs and findings from community engagement, used during final dissemination event (attached)
- This summary report.

## KEY RECOMMENDATIONS FOR END USER / POLICY / PRACTICE COMMUNITIES

### From our literature review:

- Adopt risk-based assessments or multidimensional indicators: Move away from solely relying on expenditure-based indicators for fuel and transport poverty, and instead employ risk-based assessments that consider multiple variables and underlying influences, including health and debt.
- Consider indicators which target 'double energy vulnerability': Indicators might capture affordability, mobility, accessibility, and exposure to negative externalities.
- More/better monitoring is needed: Increase national monitoring efforts to collect comprehensive data on fuel and transport poverty. By monitoring and measuring both issues concurrently, policymakers can gain insights into their correlation and design effective interventions.



From our community engagement:

- Communities expressed concern and direct fuel and transport poverty impacts in their lives. Also, these joint challenges can be more complex and go deeper than what is commonly referred to on the literature (i.e. similar fuel and transport poverty drivers can affect people in very different ways, depending on specific circumstances).
- Top-down policies/solutions may not be effective in tackling these issues, e.g. access to services ('transport poverty') for certain communities and/or groups will not be solved with cheaper petrol/diesel, and linked to this, it was highlighted the role of the community in supporting and encouraging positive change in tackling these issues.
- It was remarked during our community engagement that overall there is low awareness and/or accessibility of existing support (e.g. energy efficiency grants), also that the process can be complicated and lengthy. Increased awareness, and a more streamlined and quicker approach to access grants and implement solutions is therefore required.

#### PLANNED FOLLOW UP ACTIVITIES

Dissemination and impact: when the second policy brief is finished, we plan to disseminate the policy briefs to the relevant councils, potentially the Scottish government and the UK Parliamentary Group for Energy Studies.

Follow-up project: Built upon findings of this project, we are planning to apply for funding of a larger project relating to fuel poverty and/or residential heating in the context of transition to low carbon energy resources.

In addition, we are currently in the process of acquiring smart meter and energy efficiency data at the household level, hosted by the UK Data Service. Our objective is to utilize statistical analysis techniques to identify the socioeconomic characteristics of the group categorized as fuel/transport poor, and to provide insights on enhancing the measurement of fuel/transport poverty.