

Understanding the challenges faced by fuel poor households

Final report for the Committee on Fuel Poverty



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Foreword

The Committee on Fuel Poverty welcomes this commissioned research undertaken by London Economics during the winter of 2022/2023. In the midst of a cost of living crisis, a record number of households faced fuel poverty. Understanding the lived experience and relationship between challenges faced by fuel poor households is critical in designing policy to meet the UK's fuel poverty targets.

The research highlighted specific demographics facing particular challenges over winter and draws clear linkages and insights between fuel poverty and negative financial (energy affordability, debt) and non-financial (health, nutrition, education) outcomes. Key insights include:

- **Energy was rationed:** According to Citizens Advice, in 2022, the number of people unable to top up their prepayment meter was more than the previous ten years combined. Alternative heating strategies such as use of electric blankets and hot water bottles spiked in popularity.
- **Health and wellbeing suffered as a result of heat rationing:** London Economics' analysis of ONS statistics demonstrated that over winter, 57% of adults rationing heating fuel (34% of all adults) felt that having to cut back on heating their home affected their health and wellbeing. For children, cold temperatures worsen respiratory diseases, cognitive development, ability to focus on schoolwork, and increase rates of depression; while for older people, 800,000 of the over 60s left their home in January 2023 to stay warm elsewhere.
- **The fabric of homes suffered from damp:** Visits to Citizens Advice 'damp repairs' webpage doubled year on year.
- **Help was challenging to access:** Workshop participants noted calls to energy companies over winter were more numerous, complex, and required more frequent intervention.

The research also noted the link between fuel poverty and costs borne by the health service: the cost to the NHS from people living in cold conditions in England amounts to £1.4 billion per year, whereas upgrading cold homes to no longer being a health and safety hazard would save the NHS £540 million per year. The relationship between the behaviour and needs of the fuel poor, health outcomes and health service costs demonstrate both the complexity of the issue and the potential for cross-departmental policy interventions to drive positive societal outcomes.

We would like to thank all of the stakeholders whose research contributed to the REA and to all those who participated in workshops. Though the research was time constrained, we value this engagement and the consolidated views summarised in this report provide an important lens on options to resolve some of the challenges facing the fuel poor. We recognise wider voices of the fuel poor and adjacent sectors could be explored in greater detail.

Last year we said we needed to plan for the next year and next winter. This continues to remain true and we hope that these insights can inform policymakers. The views gathered in stakeholder workshops emphasised that alongside bill support for the short term price shock of last winter, relentless focus on energy efficiency will be needed for long term success in meeting fuel poverty targets.

The concluding principles outlined in the report offer options to evolve the current landscape for the fuel poor, and we look forward to using the findings to shape our future research.

Committee on Fuel Poverty

Executive Summary

With rising costs and household bills, those in fuel poverty faced an increased challenge of keeping themselves warm in their homes, particularly over the winter of 2022/23.

This study helps understand the challenges that fuel poor households face when making decisions regarding fuel consumption. It adds to the evidence base available to the government and the Committee on Fuel Poverty, enabling better understanding as to how these challenges will need to be addressed in the future. The study does so by considering two overarching research questions:

- 1) What challenges are faced by fuel poor households around energy bill affordability?
- 2) How are fuel poor households using energy in winter 2022/23?

Using a combination of a Rapid Evidence Assessment, workshops with industry experts and frontline energy advisors, and online research (analysing posts on online forums - MumsNet and Reddit - and analysing Google Trends), this report attempts to answer these two questions.

Challenges faced by fuel poor households

Fuel poor households face many challenges. In this study, challenges were grouped into the following themes:

- **Affordability of energy:** An increasing share of households cannot afford to heat their home sufficiently. Consequently, some households are resorting to coping strategies that typically revolve around rationing heat, power and water. This can involve only heating one room in the house, referred to as “spatial shrink”; going to bed or changing sleeping patterns to stay warm; washing less at home; or using improvised fuels such as clothes, books or waste and alternative means of light, including candles. At the extreme, households may “self-disconnect”, referring to cases where households fail to top up a prepayment meter and let it run out.
- **Debt:** The cost of living crisis, and concurrent increases in energy costs, has led to a substantial increase in the number of households in arrears on energy bills, both in gas and electricity. This may have led to more fuel poor households borrowing money from family and friends, going into overdrafts, or turning to illegal lending facilities. In turn, debt can exacerbate fuel poverty, since it may leave households on expensive tariffs or payment types, e.g. prepayment. Debt also has negative implications for mental health.¹
- **Health and wellbeing:** In the winter of 2022/23, 57% of adults, who reported having used less fuel, felt that having to cut back on heating their home affected their health and wellbeing.² Damp, cold, dark and mouldy conditions in particular have an impact on physical and mental health across age ranges. Cold homes are a substantial burden on the healthcare sector. Across the owner-occupied, private rented and social rented sector,

¹ National Debtline. (2023). *Debt and mental health*. Accessed: 23/02/2023, retrieved from: <https://nationaldebtline.org/fact-sheet-library/debt-and-mental-health-ew/>

² Office for National Statistics (ONS). (2023, 30 January). *The impact of winter pressures on different population groups in Great Britain: 22 November to 18 December 2022*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/theimpactofwinterpressuresondifferentpopulationgroupsingreatbritain/22novemberto18december2022>

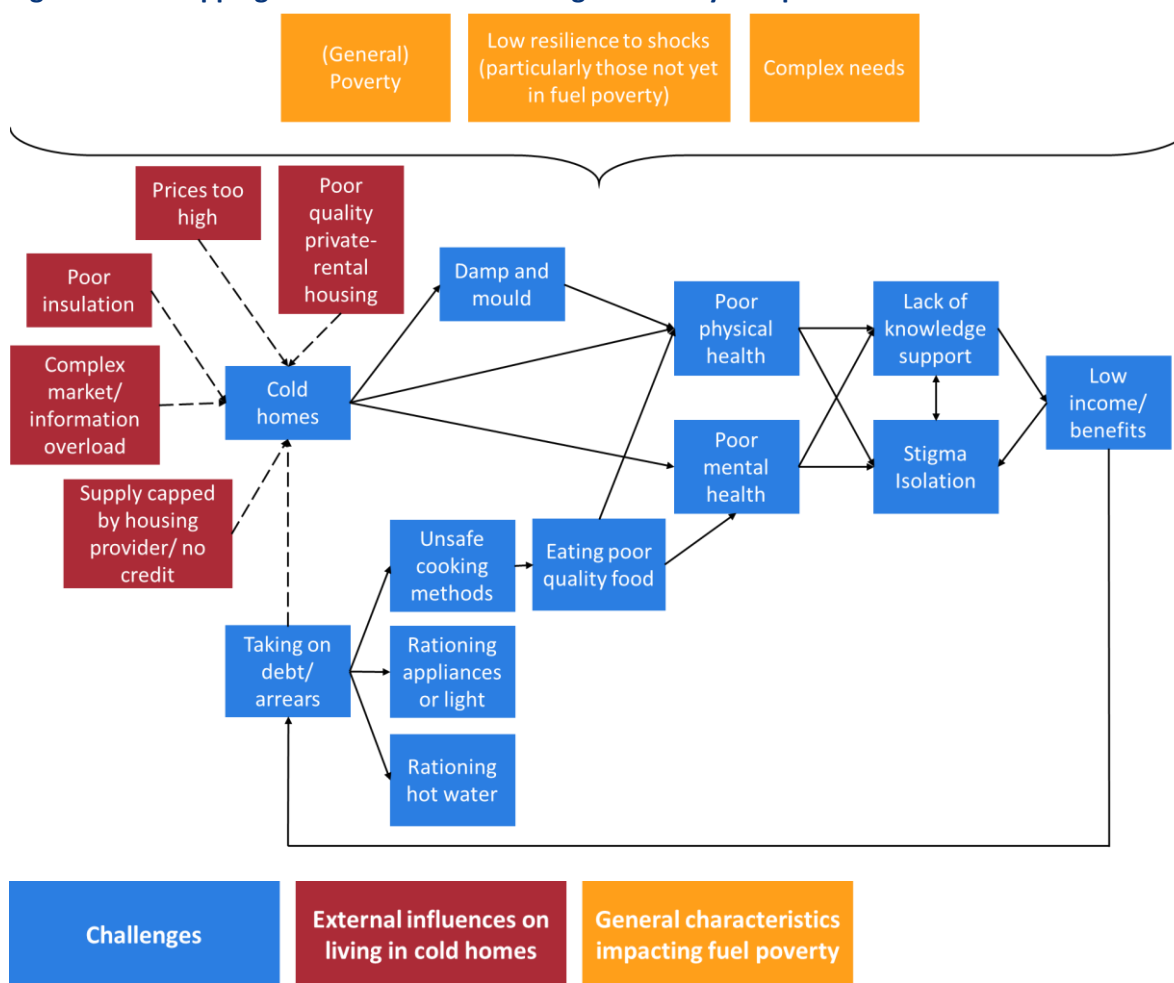
upgrading cold homes such that they are no longer a health and safety hazard would save the NHS £540 million per year.³

- **Education:** Fuel poverty, and particularly living in cold homes, also have an impact on children’s cognitive development and education. Mould related illness may lead children to missing school. Furthermore, where households ration energy use by “spatial shrinking”, children may find it more difficult to concentrate on homework. These impacts are made worse by also going hungry.
- **Food and nutrition:** Relying on lower incomes requires fuel poor households to prioritise spending between heating the home or on food. As such, fuel poor households are more likely to buy less food, or rely more on foodbanks for essential items. In extreme cases, cutting back on food may lead to malnutrition. Fuel poor households may be forced to change how they use energy to prepare food using alternative – sometimes unsafe – cooking methods (e.g. batch cooking, slow cooking, barbecues). Fuel poverty may compromise nutrition by shifting consumption patterns to less healthy and poorer quality foods (e.g. microwave ready-meals).
- **Other challenges:** The workshops highlighted a number of additional challenges faced by households in fuel poverty including: poor resilience against unexpected shocks, such as reduction in income or an unexpected expenditure; poor access to, or knowledge of, support; and, strain and stress in households.

Links between challenges

The challenges faced by fuel poor households are complex and interrelated. The workshop included a mapping exercise to try to understand how the challenges link up more generally. The figure overleaf provides a mapping informed by this exercise.

³ Building Research Establishment. (2023). *The cost of poor housing in England. 2023 Briefing paper: Tenure-based analysis*. Available at: https://files.bregroup.com/corporate/BRE_cost%20of%20poor%20housing%20tenure%20analysis%202023.pdf

Figure 1 Mapping of links between challenges faced by fuel poor households

Source: London Economics analysis-based on workshop feedback

The map contains feedback loops and reversed links. For example, the workshop participants highlighted that poor mental health leads to isolation or stigma, but stigma and isolation also worsen mental health. This means that there are many points at which an individual or a household can become fuel poor, and there is no one point from which the issue originates.

Impact on specific groups

Fuel poverty impacts people differently. A variety of vulnerabilities characteristics were identified as influencing susceptibility to fuel poverty and its impact. Some particular groups affected most are:

- Households with low income
- Those with health-based vulnerabilities (those living with disabilities, those relying on medical equipment, and those who are terminally ill)
- Ethnic minority households
- Single parent households
- Households that are digitally excluded
- Private rental sector

- Off the gas grid communities

It was also noted that age and geography can also influence vulnerability to fuel poverty.

Challenges and coping strategies in the winter of 2022/23

The winter of 2022/23 was particularly challenging in terms of both the impact and rate of fuel poverty. While the types of challenges and coping strategies, mentioned above, did not change much, they had become more extreme.

Workshop participants noted that households in fuel poverty became increasingly desperate over the winter of 2022/23. Households in fuel poverty were using more unconventional – and more dangerous – heating and lighting methods to avoid using energy during the winter of 2022/23 compared to previous winters. Workshop participants also noted an increase of self-disconnection over the winter of 2022/23.

Support for fuel poor households

Government support

Support available from the government to reduce fuel poverty differs fundamentally in structure and intent, depending on the exact policy, but can be broadly grouped into two categories:

- 1) Support focused on directly alleviating high energy costs and household bills, predominantly short-term urgent support to help with the energy crisis over the winter of 2022/23. This includes (amongst others): Energy Bills Support Scheme, Alternative Fuel Payment, Cost of Living Payments and Energy Price Guarantee. Longer-term financial support for household energy costs for low-income, fuel poor and vulnerable households is also available through established schemes, such as the Warm Home Discount, the Cold Weather Payment and the Winter Fuel Payment.
- 2) Policies focused on improving the energy efficiency of homes, which over the longer term will reduce household energy bills. The Government has a statutory fuel poverty target to ensure that as many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency rating of Band C by 2030. Policies aimed at achieving this target include (amongst others): the Energy Company Obligation; the Green Home Grant local authority delivery scheme; the Home Upgrade Grant; and the Social Housing Decarbonisation Fund.

The study provides strengths and weaknesses of such policies as reflected by workshop participants and the literature. Overall, the government support provided over the winter of 2022/23 was significant, with stakeholders participating in the workshops recognising that an unprecedented amount of money was made available for combatting fuel prices. The policies which were announced in advance particularly helped households to plan ahead and alleviate some uncertainty.

Other forms of support

On top of government programmes and regulation by Ofgem, advice and support for vulnerable and fuel poor households has also been given via charity and community projects. Some examples of such initiatives include: the Energy Redress Scheme, warm bank initiatives, fuel banks and pilot heat prescription schemes.

Further support needed

Whilst recognising the unprecedented nature of energy bill support in the winter of 2022/23, the study finds that further long-term support on energy bill affordability and energy efficiency would be needed (and for the latter, accelerated) in order to meet government fuel poverty targets in 2025 and 2030.

Workshop participants put forward various suggestions as to what further support would be required. Amongst these suggestions were:

- considerations for a social tariff;
- an opportunity for data sharing to help identify fuel poor households and enable policies to be targeted more effectively; and,
- preference for national government to coordinate the overall objectives and national strategy for improving the energy efficiency of homes, with local authorities, communities and the voluntary sector leading delivery, due to their knowledge of the community groups they serve.

Assessing the feasibility of these proposals was not within scope of this study, therefore further research would be required to investigate these options more rigorously.

Conclusions and areas to explore further

Fuel poor households face a wide range of challenges. In the winter of 2022/23, faced with rising costs, there was a deepening and broadening of fuel poverty. The landscape is undoubtedly complex: with multiple links between challenges, there is no linear path determining an individual's experience of fuel poverty.

Acknowledging the challenges and the existing policy framework, the findings of this report suggest the direction of travel to meet the government's fuel poverty targets in 2025 and 2030 should focus on 4 key principles, with further research needed to consolidate these proposals:

- 1) **Streamlined set of support measures developed across government departments**
- 2) **Harnessing available data to identify and target those most in need**
- 3) **Improving energy advice and information**
- 4) **National coordination and strategy, regional delivery of energy efficiency measures**

1 Introduction

Unprecedented inflation, high energy costs and wider cost of living increases made the winter of 2022/23 a challenge for many households. This was especially the case for those living in fuel poverty; low-income households living in energy-inefficient homes. With rising costs, those in fuel poverty faced an increased challenge of keeping themselves warm in their homes, particularly over winter.

This study helps understand the challenges that fuel poor households face not only during the winter of 2022/23, but more generally when making decisions regarding fuel consumption. It adds to the evidence base available to the government and the Committee on Fuel Poverty, enabling better understanding as to how these challenges will need to be addressed in the future. The study does so by considering two overarching research questions:

- 1) What challenges are faced by fuel poor households around energy bill affordability?
- 2) How are fuel poor households using energy in winter 2022/23?

Since fuel poverty is a devolved matter, this study focuses primarily on England.

Using a combination of a literature review, workshops with industry experts and frontline energy advisors, and online research, this report attempts to answer these two questions. Furthermore, the report provides suggestions for areas to explore in further research to help inform government policy that will effectively help those in fuel poverty.

The remainder of this report is structured as follows:

- Section 2 provides a brief overview of the methodology underlying this report;
- Section 3 presents the challenges faced by fuel poor households and their strategies to cope with this;
- Section 4 assesses the support available to households in fuel poverty and outlines its strengths and weaknesses; and,
- Section 5 concludes and provides areas to explore with further research.

2 Overview of the methodology

The evidence underpinning this report was collected via three separate methodologies: a literature review, workshops with industry experts and frontline energy advisors, and online research. These are briefly explained below. More detail is available in the separate Technical Annex accompanying this report.

2.1 Rapid Evidence Assessment

The literature review was conducted in the form of a Rapid Evidence Assessment (REA). An REA provides a systematic and rigorous analysis process, following a four-step approach, but it is not a comprehensive literature review. The four steps cover both the identification of the literature and the inclusion in the research, as presented below.

In the first step, literature was searched on Google Search and Google Scholar using a list of pre-defined search terms. These terms centred around the words “energy”, “crisis”, “winter” and “fuel poverty”. A full list is available in the Technical Annex. In the second step, an initial cursory reading was undertaken to exclude papers completely unrelated to fuel poverty. The remaining papers were then assessed for quality and relevance to fuel poverty. In the third step, the remaining literature was classified based on, among others, topic areas covered in the paper, the geographic focus of the paper (with a preference for papers focusing exclusively on England), and household and personal characteristics covered in the paper. This formed a database of literature. In the fourth step, the literature considered excellent in terms of quality and relevance were read in detail. The resulting detailed reading and associated analysis formed the backbone of the review. Other articles in the database were cross-referenced to ensure the accuracy and validity of the findings.

2.2 Workshops

The REA was complemented with workshops conducted with industry experts and frontline energy advisors. The purpose of these workshops was to provide a sense-check of the findings from the REA, and to bridge the evidence gaps outstanding from the literature.

In total, six workshops were conducted online via Zoom, each lasting around two hours. Workshops were held between 8 and 20 March 2023, with a total of 39 workshop participants (between 5 and 9 participants per group). The participants were purposively sampled to ensure a mix of viewpoints would be expressed during the discussion. Participants included representatives of charities, energy suppliers, housing market bodies and local government, as well as academics and frontline advisors.

The workshops were led by an experienced facilitation team, following an agreed workshop guide (see the Technical Annex for details). One member of the London Economics project team sat in on each of the workshops as a link to the wider project. Members of the Committee on Fuel Poverty or the Department for Energy Security and Net Zero were not directly involved in the workshops to avoid inadvertently biasing discussions.

2.3 Online research

Online research was conducted to complement the findings from the REA and the workshops, and to gather additional evidence on the experiences of fuel poor households in the winter of 2022/23. This research consisted of two strands.

The first strand consisted of extracting information from two online forums: Mumsnet and Reddit. From both forums, the project team extracted plain text comments describing current experiences with energy and fuel poverty from members of these websites. Relevant text was identified by:

- limiting the extraction of information to text posted from 23 September 2022 onwards; and,
- filtering text based on lists of pre-defined words focusing on energy and fuel poverty (see Technical Annex for details).

The sample of text identified through this strategy is henceforth referred to as the ‘extracted comments’. The extracted comments from both online forums were analysed by, among other methods, looking at the frequency with which certain words appear in the extracted text, including changes of these frequencies over time.

The second strand consisted of an analysis of Google Trends data. Google Trends tracks the popularity of Google Search terms over time. Data for a list of pre-defined search terms was extracted, and the popularity of these terms was assessed over time.

2.4 Limitations

For the remainder of the report, a number of caveats to the methodology are worth keeping in mind.

For the literature, it should be noted that an REA does not attempt to be comprehensive. As such, papers may be missed. Furthermore, reports define households in fuel poverty differently. This means that different reports capture different groups of households when discussing fuel poverty. Lastly, it is difficult to disentangle fuel poverty from general poverty, especially when talking about the impacts of support. Reports do not necessarily attempt to make this distinction explicitly.

For the workshops, the time available in each workshop and maximum number of invitees may have limited the discussion. For example, some feedback or particular voices may have been missed. In particular, the workshops did not include fuel poor households directly, but did include frontline advisors working first-hand with these households.

With regard to the online research, the main limitation is that it is not possible to assess whether the data obtained from the online forums or Google Trends relates exclusively to households in fuel poverty. For example, households not in fuel poverty may use some of the search terms defined for the Google Trends analysis. While lists of search terms were developed to maximise the likelihood of identifying topics on fuel poverty, this could not be guaranteed. A further limitation is that online research will, by nature, not include perspectives from digitally excluded households. However, the voices of these households were included in the workshops by including frontline advisors working directly with these households, and organisations representing groups particularly likely to be digitally excluded.

3 Challenges faced by fuel poor households

Fuel poor households face many challenges. To structure this discussion, challenges have been grouped into the following themes:

- Affordability of energy
- Debt
- Health and wellbeing
- Education
- Food and nutrition
- Other challenges

These in turn can be grouped by financial and non-financial challenges. The sections below describe the separate types of challenges in turn, and touch upon its linkages. Both the REA and the workshops showed that the challenges (and the links between them) are complex and depend on individual circumstances.

3.1 Financial challenges

3.1.1 Affording energy

An obvious first challenge faced by fuel poor households is affording energy in the first place. An increasing share of households cannot afford to heat their home sufficiently. For example, Citizens Advice noted that they helped 5,190 people who could not top up their pre-payment meter in December 2022, compared to 1,174 in December 2021 or 575 in December 2020.⁴ For the entire year, the number of people unable to top up their prepayment meter was more than the previous ten years combined. Overall, Citizens Advice helped 235,000 people with energy issues in 2022, 50% more than 2021.⁵

The issue precedes the current cost of living crisis, having already started during the COVID-19 pandemic. By September 2020, 2.1 million consumers were in arrears on energy bills; 600,000 more than in February 2020 before COVID-19 hit the UK.⁶

Coping strategies for affordability of energy typically revolve around rationing⁷, and the workshops found that fuel poor households took extreme measures, including self-rationing, in the winter of 2022/23.

The first type of rationing undertaken is heat rationing. Although heat rationing may involve innocuous things such as lowering the thermostat by one degree, rationing for fuel poor households is often more extreme. A Call for Evidence noted that almost all organisations responding in autumn

⁴ Citizens Advice. (2023). *Citizens Advice Cost of Living dashboard*. Retrieved from: <https://public.flourish.studio/story/1634399/>

⁵ Ibid.

⁶ Ambrose, A., Baker, W., Sherriff, G. and Chambers, J. (2021). Cold comfort: Covid-19, lockdown and the coping strategies of fuel poor households. *Energy Reports*, 7, pp. 5589-5596.

⁷ National Energy Action and Energy Action Scotland (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

2022 said that clients were only heating one of their rooms; something referred to as “spatial shrink”. A household survey published alongside the Call for Evidence emphasised other rationing strategies undertaken including going to bed or changing sleeping patterns to stay warm (41% of struggling households reported undertaking this behaviour), leaving the house or using improvised fuels such as clothes, books or waste (16% of struggling households reported undertaking this behaviour).⁸

A particularly extreme version of this is “self-disconnection”. This refers to cases where households fail to top up a prepayment meter and let it run out. While this may be caused by forgetfulness or going on holidays, it can also stem from not being able to afford to top up the meter. Self-disconnection was reported in the workshops as evidence of extreme measures fuel poor households are undertaking. One workshop participant noted that some struggling households ask to be put on prepayment meters. Reasons given as to why included consumers perceiving prepayment meters will help them budget and ration their energy uses better because it is easier to see how much energy is being used or because they can self-disconnect.

Power rationing was also mentioned as a coping strategy in the Call for Evidence.⁹ For example, fuel poor households may turn off mains lights and use alternative lighting, including candles which are associated with risk of fire. Similarly, as for heat rationing, self-disconnection may lead to fuel poor people not being able to use vital appliances. As highlighted in Table 1, the Office for National Statistics (ONS) notes that – of consumers who used less electricity and gas in the winter of 2022/23 (60% of adults) – 43% were using a tumble dryer less often and 42% were using the washing machine less often.¹⁰

Table 1 Self-rationing of heat and appliances

Coping strategy	Percentage	Base
Adults reporting using less fuel, of which:	60%	All UK Adults
Use the heating less	95%	All UK Adults reporting using less fuel
Use the tumble dryer less	43%	All UK Adults reporting using less fuel
Use the washing machine less	42%	All UK Adults reporting using less fuel
Bath or shower less often	38%	All UK Adults reporting using less fuel

Source: Office for National Statistics

Power rationing may particularly impact those with medical needs. The workshops highlighted that medical equipment can be expensive to run. Some people elect to reduce or stop using their medical equipment they rely on. As such, self-rationing has implications on health and wellbeing.

⁸ Ibid.

⁹ Ibid.

¹⁰ Office for National Statistics (ONS). (2023, 30 January). *The impact of winter pressures on different population groups in Great Britain: 22 November to 18 December 2022*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/theimpactofwinterpressuresondifferentpopulationgroupsingreatbritain/22novemberto18december2022>

Lastly, water may be rationed; in particular, hot water.¹¹ Strategies for coping with high energy prices include washing less at home (38% of adults using less fuel – see Table 1) or washing in public facilities to conserve hot water at home.¹²

Difficulties navigating the complex energy market, and the support within it, worsens problems with affording energy. The workshops highlighted that many struggling households find it difficult to contact their supplier to ask for help. Furthermore, many in fuel poverty do not see their supplier as their first contact point. As such, energy companies represented in the workshops reported seeing cases where people self-rationed or disconnected while support from the companies would have been available.

3.1.2 Debt

By definition of the Low Income Low Energy Efficiency (LILEE) indicator, fuel poor households have a low income.¹³ As such, debt is a concern. The cost of living crisis, and concurrent increases in energy costs, has led to a substantial increase in the number of households in arrears on energy bills, both in gas and electricity. Citizens Advice also noted that energy debt is an issue they help with increasingly often. This may have led to more fuel poor households borrowing money from family and friends, going into overdrafts, or turning to illegal lending facilities.¹⁴

In turn, debt can exacerbate fuel poverty. High debts and credit checks might leave households on expensive tariffs or payment types.¹⁵ Debts for households on prepayment meters may lead to households not being able to afford to top up their meters, and to self-disconnection.¹⁶ Some vulnerable consumers have even been forced to switch to prepayment meters, despite Ofgem rules stating that vulnerable customers should not be switched.¹⁷ In 2022, over 94,000 prepayment

¹¹ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

¹² 60% of respondents to the Call for Evidence by National Energy Action and Energy Action Scotland reported showering and washing in public facilities as a strategy to ration water.

¹³ Department for Business, Energy & Industrial Strategy (BEIS). (2022). *Fuel Poverty Methodology Handbook (Low Income Low Energy Efficiency)*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1056802/fuel-poverty-methodology-handbook-2022-lilee-with-projection.pdf

¹⁴ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Citizens Advice. (2023). *Citizens Advice Cost of Living dashboard*. Retrieved from: <https://public.flourish.studio/story/1634399/>

¹⁵ National Energy Action. (2019). *National Energy Action (NEA) response to UK Government consultation on the Fuel Poverty Strategy for England*. Available at: <https://www.nea.org.uk/publications/nea-response-to-uk-government-consultation-on-the-fuel-poverty-strategy-for-england/>

¹⁶ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

¹⁷ Nanji, N and Race, M. (2023, 2 February). *British Gas admits agents break into struggling customers' homes*. BBC News. Accessed: 23/03/2023; available at: <https://www.bbc.co.uk/news/business-64491243>

meters were forcibly installed under warrant, although not all of these would have been installed for vulnerable consumers.¹⁸

Debt also has implications for mental health. Many adults who struggle with debt also have issues with mental health.¹⁹ It is associated with feelings of powerlessness, depression, and anxiety.²⁰

3.2 Non-financial challenges

3.2.1 Health and wellbeing

Fuel poverty is associated with adverse impacts on health. As Table 2 below shows, in the winter of 2022/23, 34% of all adults (or 57% of adults reporting having used less fuel) felt that having to cut back on heating their home affected their health and wellbeing, and 13% of all adults (or 22% of those using less fuel) said that rationing energy to cook or heat meals did the same. Participants in the workshops agreed that these health challenges are among the most important faced by households in fuel poverty. Additionally, in all workshops, the impacts of living in cold, damp and mouldy homes on mental and physical health were also ranked as very important.

Table 2 Impacts on health from self-rationing fuel

Impact on health	Percentage (all adults)	Percentage ^[a] (of those rationing fuel)
Adults reporting using less fuel	60%	-
Health impacted due to cutting back heating the home	34%	57%
Health impacted due to cutting back on energy use for cooking	13%	22%

Note: [a] London Economics calculation based on Office for National Statistics.

Source: Office for National Statistics²¹

Damp, cold, dark and mouldy conditions, in particular, have an impact on health across age ranges. At a very young age, cold conditions impact growth and development of babies, and require more calories for babies to grow. Children are also impacted by cold as it causes or worsens respiratory

¹⁸ GOV.UK. (2023, 27 March). Just 3 energy suppliers making up over 70% of all forced installation of prepayment meters. Press release. Available at: <https://www.gov.uk/government/news/just-three-energy-suppliers-making-up-over-70-of-all-forced-installation-of-prepayment-meters>

¹⁹ National Debtline. (2023). *Debt and mental health*. Accessed: 23/02/2023, retrieved from: <https://nationaldebtline.org/fact-sheet-library/debt-and-mental-health-ew/>

Royal College of Psychiatrists. (2023). *Debt and mental health*. Accessed: 23/02/2023, retrieved from: <https://www.rcpsych.ac.uk/mental-health/problems-disorders/debt-and-mental-health>

²⁰ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

²¹ Office for National Statistics (ONS). (2023, 30 January). *The impact of winter pressures on different population groups in Great Britain: 22 November to 18 December 2022*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/theimpactofwinterpressuresondifferentpopulationgroupsingreatbritain/22novemberto18december2022>

diseases, such as bronchitis. Similarly, cold temperatures can worsen lung function for children with asthma.²²

As with children, cold and mouldy conditions can worsen respiratory diseases for adults. These conditions can also cause cardiovascular problems, with cold weather being associated with an increase in blood pressure. In the longer term, cold conditions can worsen diseases, such as diabetes and rheumatoid diseases, or increase the presence of markers for Alzheimer's disease. In the worst-case scenario, cold conditions can contribute to excess deaths in winter. These issues are especially pronounced for older people, since their bodies are less able to regulate body temperatures and they are more susceptible to longer-term conditions also in absence of fuel poverty.²³

Cold, damp and mouldy conditions affect mental wellbeing for both children and adults. Children living in cold homes are seven times more likely to exhibit poor mental health.²⁴ Moreover, children in cold homes are generally less likely to be happy in their family (10% for children living in cold homes compared to 2% for children living in warm homes).²⁵ Similarly, cold conditions can lead to feelings of anxiety, stress and depression in adults. This in turn can lead to isolation, with many fuel poor people not inviting people to their homes.²⁶

All of this has an impact on the costs to the NHS. Across the owner-occupied, private rented and social rented sector, upgrading cold homes to no longer make them a health and safety hazard would save the NHS £540 million per year.²⁷ As such, cold homes are a substantial burden on the healthcare sector.

As Table 1 highlights, 38% of adults using less fuel bathe or shower less. More generally, the workshop participants noted that fuel poverty leads to a reduction of personal hygiene and washing of clothes (e.g. children's school uniforms) because of the associated costs to use these appliances.

The workshops also highlighted that some fuel poor households feel stigma and a lack of dignity for having to rely on help. This is particularly true for households that used to cope well and feel

²² Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Citizens Advice. (2018). *Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households*.

World Health Organisation. (2018). *Housing and health guidelines*. Available at: <http://apps.who.int/iris/bitstream/handle/10665/276001/9789241550376-eng.pdf>.

²³ Ibid.

National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

²⁴ Haq, S.N. (2022, 25 December). 'Life or death:' As Britons buckle under the cost of living crisis, many resort to 'warm banks' for heat this winter. CNN. Accessed: 23/02/2023; available at: <https://edition.cnn.com/2022/12/25/uk/warm-banks-cost-of-living-crisis-intl-gbr-cmd/index.html>

²⁵ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Citizens Advice. (2018). *Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households*.

²⁶ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

²⁷ Building Research Establishment. (2023). *The cost of poor housing in England. 2023 Briefing paper: Tenure-based analysis*. Available at: https://files.bregroup.com/corporate/BRE_cost%20of%20poor%20housing%20tenure%20analysis%202023.pdf

embarrassed by having to ask for support from government, charities or family. These feelings are exacerbated by a perceived lack of freedom; workshop participants highlighted that households in fuel poverty need to build their lives around using energy in a very restricted and regimented way, dictated by tight budgeting. This can lead to a ‘constant state of vigilance’²⁸, whereby fuel poor households lack freedom and agency to make (even) rudimentary choices in their everyday lives.

3.2.2 Education

Fuel poverty, and particularly living in cold homes, also have an impact on children’s cognitive development and education. Mould related illness may lead children to missing school. A workshop participant also mentioned that parents being unable to wash school uniforms regularly (see Table 1 for evidence suggesting rationed use of washing machines and tumble dryers) can also result in social isolation and poorer educational outcomes at school. Furthermore, where households ration energy use by “spatial shrinking” (see above), children may find it more difficult to concentrate on homework.²⁹

For adolescents, stigma and feelings of helplessness may also impact on educational attainment and performance. These impacts are made worse by also going hungry. Teenagers living in cold homes and who go hungry (see ‘Food and nutrition’ below) are more likely to be depressed, affecting their performance in school. Furthermore, stigma and social isolation may have an impact on social standing at school, which may impact willingness to put effort into schooling.³⁰

Although difficult to quantify, this challenge disproportionately impacts children and young people, and taken together with health and wellbeing above – was viewed as a fundamental of a good quality life. For these reasons, it was considered very important by workshop participants.

3.2.3 Food and nutrition

Fuel poverty may also lead to food insecurity. Relying on lower incomes requires fuel poor households to prioritise spending between heating the home or on food. As such, fuel poor households are more likely to buy less food, or rely more on foodbanks for essential items. In extreme cases, cutting back on food may lead to malnutrition.³¹ One workshop participant noted that the profile of those in fuel poverty is similar to the profile of people relying on food banks.

²⁸ Quote from workshop participant.

²⁹ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Citizens Advice. (2018). *Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households*.

³⁰ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

³¹ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Citizens Advice. (2018). *Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households*.

Fuel poor households may be forced to change how they use energy to prepare food, impacting food security. Fuel poor households may elect to only eat cold meals, or ready-meals that only require a microwave for heating and do not need to be stored. The former includes, for example, the use of cold tinned foods which can be eaten without heating. The latter allows fuel poor households to switch off appliances such as fridges and freezers to minimise electricity consumption.³²

Not only is energy rationed in preparing food, but alternative – sometimes unsafe – cooking methods may also be used instead of using gas and electricity. The workshops identified sensible alternatives such as slow cooking or batch cooking, rather than cooking something different each day. Although not done frequently, other and more extreme methods include the use of barbecues indoors instead of gas hobs. These methods are often unsafe since they can lead to carbon monoxide poisoning.³³

Lastly, fuel poverty may compromise nutrition by shifting consumption patterns to less healthy and poorer quality foods. Here, fuel poor households may simply be priced out of buying sufficiently high-quality food due to their lower incomes. This may lead to poorer nutrition for those in fuel poverty.³⁴

An obvious knock-on effect of food insecurity is on health. Lack of essential foods or poorer quality foods may lead to poorer health. For example, children without access to nutritious food have an increased risk of medical issues like obesity, headaches or stomach aches. Mental wellbeing is also impacted by lack of food. Going hungry may cause stress, lack of sleep or social isolation. In extreme cases, the lack of access to food may cause malnutrition.³⁵

National Energy Action. (2019). National Energy Action (NEA) response to UK Government consultation on the Fuel Poverty Strategy for England. Available at: <https://www.nea.org.uk/publications/nea-response-to-uk-government-consultation-on-the-fuel-poverty-strategy-for-england/>

³² National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Ambrose, A., Baker, W., Sherriff, G. and Chambers, J. (2021). Cold comfort: Covid-19, lockdown and the coping strategies of fuel poor households. *Energy Reports*, 7, pp. 5589-5596.

³³ National Energy Action and Energy Action Scotland (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

³⁴ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Ambrose, A., Baker, W., Sherriff, G. and Chambers, J. (2021). Cold comfort: Covid-19, lockdown and the coping strategies of fuel poor households. *Energy Reports*, 7, pp. 5589-5596.

³⁵ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

3.3 Other challenges

The workshops highlighted a number of additional challenges faced by households in fuel poverty.

Participants noted that fuel poor households generally have poor resilience against unexpected shocks, such as reduction in income or an unexpected expenditure. They highlighted poor financial resilience, wherein fuel poor households do not have the resources to easily overcome a shock, and mental resilience, wherein fuel poor households do not have the mental bandwidth to deal with further complications in their life.

The workshop participants also noted poor access to, or knowledge of, support. As mentioned previously, people in fuel poverty find it difficult to navigate the energy market, and therefore do not always find support that their supplier is able to offer. The wider framework of support is also complex; it is not always clear to people in fuel poverty what support is available – or whether they are eligible – or who to contact to find the support. This does not only cover support from energy suppliers, but also support from government or charities.

Lastly, the workshop participants highlighted that fuel poverty leads to strain and stress in households. The participants recognised that stigma and mental wellbeing is not merely an individual outcome. The restricted and regimented life dictated by fuel poverty, mentioned above, leads to friction between members of the household surrounding when they're using energy and how much it costs. One workshop participant mentioned that they often hear children screaming in the background while on calls with those in need. These stresses – as highlighted in the workshops – can ultimately contribute to relationship breakdowns or domestic abuse.

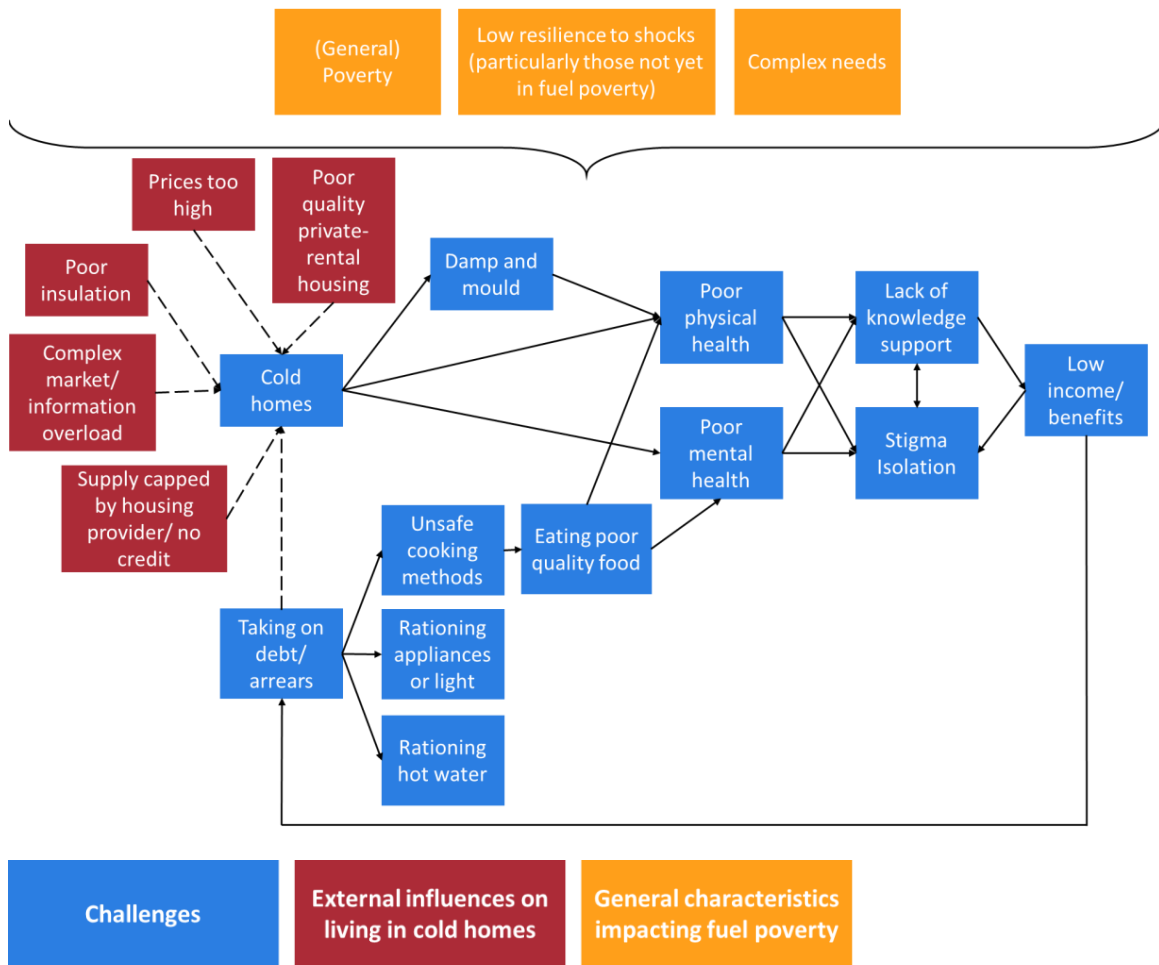
3.4 Links between these challenges

As mentioned, both the REA and the workshops show that the challenges faced by fuel poor households are complex and interrelated. Some of the links between the challenges were already mentioned in the section above.

The workshop included a mapping exercise to try to understand how the challenges link up more generally. The figure below provides a mapping informed by this exercise. It should be noted that this mapping only provides one particular depiction of what this map could look like. Fuel poverty is an incredibly complex issue, meaning that the map is not, and cannot be, complete, and the workshop participants agreed that, ultimately, all these variables are connected.

In the map below, the blue boxes indicate interlinked challenges, the red boxes indicate external influences on living in a cold home, and orange boxes indicate general characteristics which impact all elements of fuel poverty.

Figure 2 Mapping of links between challenges faced by fuel poor households



Source: London Economics analysis-based on workshop feedback

The map contains feedback loops and reversed links. For example, the workshop participants highlighted that poor mental health leads to isolation or stigma, and that stigma and isolation also worsen mental health. This means that there are many points at which an individual or a household can become fuel poor, and there is no one point from which the issue originates.

The mapping exercise did, however, highlight that the feedback loop between challenges experienced by fuel poor households and the causes of fuel poverty often starts at mental health. It seems that poor mental health (or more broadly, an inability to cope with a mental burden) can cause households to spiral – often via the feedback loops identified above – into fuel poverty.

3.5 Impact on specific groups

Fuel poverty impacts different people differently. As such, below we provide insights into the impacts of fuel poverty on a variety of vulnerabilities and characteristics. It should be noted, as highlighted in the workshops, that households exhibiting multiple vulnerabilities are impacted the most. It is however difficult to identify these groups of multiple vulnerability. Similarly, vulnerabilities not only make it more likely for individuals to be in fuel poverty, but fuel poverty may be the cause of some vulnerabilities.

3.5.1 Financial vulnerabilities

Following the LILEE definition of fuel poverty, households with low income are most likely to be affected by fuel poverty. Indeed, low-income households spend a larger proportion of their income on energy than higher income households; around 24% for household in the lowest income decile against around 5% for households in the highest six income deciles based on data collected by the Department for Energy Security & Net Zero.³⁶

This is not to say that only low-income households are under pressure. Households in the middle-income ranges are also experiencing financial difficulties, including for energy costs.³⁷ This may suggest that the LILEE definition may miss some households struggling with bills. However, it is low-income households who are struggling the most.

Two groups of financially vulnerable people can be highlighted in particular. The first group consists of individuals who have experienced a life-changing event impacting household income, such as being made redundant, bereavement, or maternity leave. This group is particularly vulnerable to fall into fuel poverty due to a loss of income or a rise in costs due to unexpected events. The second group consists of unpaid carers. Due to their caring responsibilities, this group has limited time to earn income. The literature notes that – even before the increase in energy costs in autumn 2022 – 42% of households containing people with caring duties felt unable to heat their house appropriately.³⁸

3.5.2 Health-based vulnerabilities

Those living in poor health are also particularly impacted by fuel poverty. As discussed above, energy rationing related to fuel poverty can make already poor health worse. Indeed, energy rationing may lead – in the extreme – to death. National Energy Action estimated that in the winter period between December 2021 and March 2022, 4,020 deaths could be directly attributed to living in cold homes. This averages out to approximately 45 per day.³⁹ Furthermore, the cost to the NHS from people living in cold conditions in England amounts to £1.4 billion per year in ‘first year treatment’ costs alone, whereas upgrading cold homes to no longer being a health and safety hazard would save the NHS £540 million per year.⁴⁰

Three groups with pre-existing health conditions may be particularly susceptible to the effects of fuel poverty.

³⁶ Calculated by London Economics as the median equivalised fuel costs as percentage of median after housing equivalised costs. Data is for 2022. Median fuel costs are net of rebates provided through the Warm Home Discount, the Energy Bills Support Scheme and 2022 council tax rebate.

Based Department for Energy Security and Net Zero. (2023). *Fuel poverty supplementary tables 2023 (2022 data)*. Available at: <https://www.gov.uk/government/statistics/fuel-poverty-supplementary-tables-2023-2022-data>

³⁷ National Energy Action and Energy Action Scotland (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

³⁸ Ibid.

³⁹ National Energy Action. (2023, 20 January). *Fuel poverty charity reveals 45 people per day die from cold homes*. Available at: <https://www.nea.org.uk/news/fuel-poverty-charity-reveals-45-people-per-day-die-from-cold-homes/#:~:text=Fuel%20poverty%20charity%20National%20Energy,per%20day%20in%20winter%20months.>

⁴⁰ Building Research Establishment. (2021). *The cost of poor housing in England. 2021 Briefing paper*. Available at: https://files.bregroup.com/research/BRE_Report_the_cost_of_poor_housing_2021.pdf

First, those living with disabilities, including those with existing mental or physical conditions, may be disproportionately affected. A 2018 report⁴¹ noted that 900,000 households living with disabilities in England suffered from fuel poverty. The report also notes that the situation is likely to be worse in 2023, given the increased number of people living in fuel poverty overall. Furthermore, workshop participants mentioned that this group is particularly affected since they have limited mobility and are more likely to need to stay at home. This increases the impact of cold homes, loneliness and isolation. Furthermore, this group often needs carers who do not have the time or responsibility to resolve the individual's fuel poverty problems. Lastly, people with disabilities are more likely to have lower incomes, linking up with financial vulnerability.

Second, those relying on medical equipment. The cost of running medical equipment can be very high; for example, the cost of running a dialysis machine was between £814 and £1,918 in October 2022.⁴² With increasing energy costs, these prices may become untenable for fuel poor households reliant on medical equipment. Here, power rationing by switching off appliances is particularly risky, and workshop participants mentioned that some people with health conditions reduce or stop using their medically-necessary equipment.

Third, those who are terminally ill. Many terminal conditions, such as terminal cancer, Parkinson's disease or dementia, require an appropriately heated home to prevent symptoms of the disease getting worse. Fuel poor households may not be able to provide appropriate heating, which impacts whether people experience a dignified death.⁴³

3.5.3 Household characteristics

Household characteristics substantially affect the likelihood of being in fuel poverty. This section considers:

- Age
- Household composition
- Ethnicity and background
- Digital exclusion

Age

Fuel poverty impacts those of different ages in different ways. Given that age is related to other vulnerabilities, age is often a moderating factor relating to fuel poverty and so cannot only be looked at in isolation.

Young households are more likely to be in fuel poverty: 28% of households aged 16-24 were in fuel poverty at the start of 2022 compared to 8-16% for other age groups.⁴⁴ However, the relationship

⁴¹ Quoted in Friends of the Earth. (2023). *What is fuel poverty and who does it affect?* Available at: <https://friendsoftheearth.uk/climate/what-fuel-poverty-and-who-does-it-affect>

⁴² National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

⁴³ Ibid.

⁴⁴ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

between being young and fuel poverty is not linear. On the one hand, as noted by workshop participants, younger people have more resilience health-wise to cope with the effects of fuel poverty. On the other, the workshop participants also noted that younger people typically:

- have lower income;
- are more likely to rent in the private sector;
- are less aware of support available to them; and,
- are often less catered for by support networks which more often focus on the elderly.

Furthermore, the place of residence has an impact. As reported at the start of 2022, 3.5 million young people aged under 18 live in energy crisis hotspots, a higher proportion than are living in other areas. This refers to areas where energy demand is high and household income is below average.^{45,46}

Older households (aged 65+) are more likely to be in fuel poverty since pensioners relying solely on state pensions are at risk of financial vulnerability. The state pension rate for 2023/24 is £203.85 per week.⁴⁷ This compares to a legal before-tax minimum wage of £312.60 per week for full-time employment.⁴⁸ Furthermore, older people are more likely to feel the impacts of fuel poverty, since people in old age are more likely to be in poor health.⁴⁹

In terms of the effects of fuel poverty, workshop participants noted that stigma of debt related to energy costs is higher among the elderly. As such, this group often tries to avoid debt – for example to avoid the related stigma – by choosing to live in cold homes. Furthermore, participants noted that the elderly are more likely to be digitally excluded (as discussed below), which makes them less able to find the support they need.

Household composition

Household composition also influences the likelihood of being in fuel poverty.

Garrett, H. (2022, 25 May). As energy bills rise, how can we tackle fuel poverty in the UK? Available at: <https://bregroup.com/insights/as-energy-bills-rise-how-can-we-tackle-fuel-poverty-in-the-uk/>

⁴⁵ Friends of the Earth. (2023). *What is fuel poverty and who does it affect?* Available at: <https://friendsoftheearth.uk/climate/what-fuel-poverty-and-who-does-it-affect>

Friends of the Earth. (2022, 28 August). *New research reveals nearly 9,000 'energy crisis hotspots' in England and Wales.* Available at: <https://friendsoftheearth.uk/climate/new-research-reveals-nearly-9000-energy-crisis-hotspots-england-and-wales>

⁴⁶ Note that the website cited in the previous footnote contains a map of energy crisis hotspots in England in 2022.

⁴⁷ Department for Work and Pensions (DWP). (2022). *Benefit and pension rates 2023 to 2024.* Available at: <https://www.gov.uk/government/publications/benefit-and-pension-rates-2023-to-2024>

⁴⁸ The hourly minimum wage rate for 2023/24 is £10.42 for adults (GOV.UK, n.d. [a]). The ONS defines a full-time employee as working more than 30 paid hours per week. As such, full-time employment at minimum wage is equivalent to £312.60 or the shortest working full-time employed. Note that, due to differences in taxation, the comparison between minimum wage and state pension is limited.

Calculations based on: Office for National Statistics. (2022). *Employee earnings in the UK: 2022.* Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2022>

GOV.UK. (n.d. [a]) *National Minimum Wage and National Living Wage rates.* Available at: <https://www.gov.uk/national-minimum-wage-rates>

⁴⁹ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022.* Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Households with dependent children are particularly likely to be in fuel poverty. 42.3% of fuel poor households had dependent children, amounting to 1.4 million households.⁵⁰ These households are particularly susceptible given the high time and resource cost of raising children.

Lone parent households in particular are among the most likely households to be fuel poor due to the combined effects of factors impacting single-income households and households with children.⁵¹ In 2022, around 26% of single parent households were in fuel poverty,⁵² and in July 2022, almost two-thirds of the income after housing costs of single parent households on low incomes was spent on using energy (e.g., cooking and lighting).⁵³ The reason behind this may be associated with financial challenges as – highlighted in the workshops – single parent households often have lower overall household income. Beyond income, the workshops highlighted that not only are women more likely to be in a single parent household compared to men, there is also more stigma on women for not being able to provide for their children.

The workshop participants highlighted in particular that parents will often prioritise the needs of their children over their own. As such, parents are more likely to “go without”. Similarly, in multi-generational households, older people are prioritised. Again, this leaves working-age adults in the household to be more likely to “go without”.

Expectant parents and pregnant women are also more susceptible to fuel poverty. Maternity pay has not kept pace with the cost of living, creating financial hardship for those currently reliant on it.⁵⁴ This financial hardship is worsened due to the high costs of child-rearing.

Ethnicity and background

Fuel poverty is more likely to affect ethnic minority households and people with migratory backgrounds. At the start of 2022, ethnic minority households were more likely to be in fuel poverty; 19.1% for ethnic minorities against 12.6% for white households.⁵⁵ They are also more likely to live

⁵⁰ Department for Energy Security and Net Zero. (2023). *Annual Fuel Poverty Statistics in England, 2023 (2022 data)*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139133/annual-fuel-poverty-statistics-lilee-report-2023-2022-data.pdf

⁵¹ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

⁵² Garrett, H. (2022, 25 May). As energy bills rise, how can we tackle fuel poverty in the UK? Available at: <https://bregroup.com/insights/as-energy-bills-rise-how-can-we-tackle-fuel-poverty-in-the-uk/>

Department for Energy Security and Net Zero (2023). *Annual Fuel Poverty Statistics in England, 2023 (2022 data)*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139133/annual-fuel-poverty-statistics-lilee-report-2023-2022-data.pdf

⁵³ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Joseph Rowntree Foundation. (2022, 26 August). Stratospheric energy bills will completely wipe out incomes for low income households – new JRF analysis. Available at: <https://www.jrf.org.uk/press/stratospheric-energy-bills-will-completely-wipe-out-incomes-low-income-households-new-jrf>

⁵⁴ National Energy Action and Energy Action Scotland (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

⁵⁵ Garrett, H. (2022, 25 May). As energy bills rise, how can we tackle fuel poverty in the UK? Available at: <https://bregroup.com/insights/as-energy-bills-rise-how-can-we-tackle-fuel-poverty-in-the-uk/>

in energy crisis hotspots, as defined above.⁵⁶ Furthermore, ethnic minority households have been consistently more likely to be fuel poor for over a decade.⁵⁷ The issue of fuel poverty among ethnic minorities may, therefore, be concentrated in particular areas and persist over a longer time.

Workshop participants noted that fuel poverty is worsened for people with a migratory background, since they are often less familiar with the English energy system. Therefore, they do not know who to turn to for help or guidance. Furthermore, for those speaking English as a second language, it is often difficult to communicate their problems even if they do know where to find guidance.

The link between ethnicity and fuel poverty may be driven by deeper challenges and inequalities faced by ethnic minorities. This includes inequities in access to affordable housing⁵⁸, having a higher chance of living in poverty⁵⁹ and different susceptibility for particular diseases, such as sickle cell anaemia, making people more susceptible to the cold.⁶⁰

Digital exclusion

The workshop lastly highlighted that digital exclusion – the lack of ability to independently access the internet – affects fuel poverty. People who are digitally excluded find it more difficult to contact their suppliers or other available support. Although workshop participants noted that phone calls are still the most popular method of accessing energy suppliers, digital exclusion reduces the number of channels available for people in help.

Furthermore, workshop participants noted that digital exclusion interacts with other vulnerabilities. Older people are more likely to be digitally excluded, as are people living in rural areas.

3.5.4 Housing characteristics

Housing characteristics can be split into two categories: tenure and quality of homes.

In terms of the type of tenure, renters are most affected. As highlighted in the workshops, they have no agency over decisions to make their homes more energy efficient or sometimes on how bills are paid.

Private renters are impacted disproportionately. They tend to have lower income compared to owner-occupiers, and often live in older and less energy-efficient homes, for example with solid walls, compared to social housing. Moreover, the private sector charges higher rents, has a higher prevalence of prepayment meters, and is more likely to have poor landlord practices.⁶¹ The

⁵⁶ Friends of the Earth. (2023). *What is fuel poverty and who does it affect?* Available at: <https://friendsoftheearth.uk/climate/what-fuel-poverty-and-who-does-it-affect>

⁵⁷ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

⁵⁸ National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

⁵⁹ Noted by workshop participants

⁶⁰ Noted by workshop participants

⁶¹ Garrett, H. (2022, 25 May). *As energy bills rise, how can we tackle fuel poverty in the UK?* Available at: <https://bregroup.com/insights/as-energy-bills-rise-how-can-we-tackle-fuel-poverty-in-the-uk/>

National Energy Action and Energy Action Scotland (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

workshops furthermore highlighted that private renters tend to be younger, and more reliant on landlords to pay bills or pass on support for energy costs to them.

Although social housing is more efficient, renters in the social sector often have lower incomes, (as mentioned in the workshops), meaning that social tenants are more affected by increases in energy bills.

In terms of homes, those living in uninsulated or old homes are most likely to be fuel poor since the costs of heating the home are higher.⁶² Citizens Advice identified households living in the following types of residence were more likely to be in fuel poverty:⁶³

- Buildings constructed with solid walls (rather than cavity walls);
- Larger houses;
- Houses without (condensing) boiler; and,
- Houses off the gas grid.

3.5.5 Geographical influence

Geography influences fuel poverty. Households living in colder areas are more likely to be fuel poor due to the more frequent need to turn on the heating.⁶⁴ The workshops highlighted, for example, that households in the North East tend to use more fuel compared to households in the South due to colder weather. Moreover, the workshops highlighted that homes in the North East are more likely to be off the gas grid, and therefore use alternative fuels and electricity. In terms of likelihood of fuel poverty by region of England, households in the South East are least likely to be fuel poor, whereas households in the North and Midlands are more likely to be fuel poor (see Table 3).⁶⁵

Sawyer, A., Sherriff, N., Bishop, D., Darking, M. and Huber, J.W. (2022). "It's changed my life not to have the continual worry of being warm" – health and wellbeing impacts of a local fuel poverty programme: a mixed-methods evaluation. *BMC Public Health*, 22:786, DOI: <https://doi.org/10.1186/s12889-022-12994-4>

⁶² Garrett, H. (2022, 25 May). As energy bills rise, how can we tackle fuel poverty in the UK? Available at: <https://bregroup.com/insights/as-energy-bills-rise-how-can-we-tackle-fuel-poverty-in-the-uk/>

⁶³ Citizens Advice. (2018). *Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households*.

⁶⁴ National Energy Action and Energy Action Scotland (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

⁶⁵ Department for Energy Security and Net Zero. (2023). *Annual Fuel Poverty Statistics in England, 2023 (2022 data)*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139133/annual-fuel-poverty-statistics-lilee-report-2023-2022-data.pdf

Sawyer, A., Sherriff, N., Bishop, D., Darking, M. and Huber, J.W. (2022). "It's changed my life not to have the continual worry of being warm" – health and wellbeing impacts of a local fuel poverty programme: a mixed-methods evaluation. *BMC Public Health*, 22:786, DOI: <https://doi.org/10.1186/s12889-022-12994-4>

Open Data Institute. (2022). *Who is most at risk of fuel poverty?* Available at: <https://theodi.org/article/who-is-most-at-risk-of-fuel-poverty/>

Open Data Institute. (2022). *Fuel poverty and data infrastructure: report and fuel poverty risk index*. Available at: <https://www.theodi.org/article/fuel-poverty-and-data-infrastructure-report-and-fuel-poverty-risk-index/>

Table 3 Proportion of households in fuel poverty (LILEE metric) in 2022

Region	Proportion of households that are fuel poor
North West	14.6%
North East	13.1%
Yorkshire and the Humber	15.9%
East Midlands	13.9%
West Midlands	19.2%
East of England	11.2%
South West	13.1%
London	13.2%
South East	8.6%

Source: Fuel Poverty Statistics 2023, Department for Energy Security and Net Zero. Data for 2022

Another geographic factor increasing the likelihood of households experiencing fuel poverty is living in rural or remote areas. Living in such areas tends to be associated with other vulnerabilities such as lower household income, lack of access to (essential) services, limited connectivity, poorer housing stock and an ageing population.⁶⁶ Furthermore, the workshops added that rural communities are more likely to be off the gas grid, and that it is more difficult to get physical support to people in rural communities. For example, warm spaces may only be available in towns or villages miles from some vulnerable households.

Urban communities also face specific challenges relating to fuel poverty. As pointed out in workshops, households in urban areas are more likely to be private renters as opposed to social renters or owner-occupiers. As mentioned above, this group is impacted disproportionately by fuel poverty. Furthermore, more households live in urban areas. Although the proportion of households in fuel poverty is higher in rural communities, the absolute number is higher in urban areas.⁶⁷

The workshops also highlighted that certain communities may be more likely to be off the gas grid. For example, the boating and traveller communities are more likely to rely on alternative fuels. These groups, therefore, find it more difficult to access the usual support schemes, which are optimised for on-gas properties, although specific support for off-gas-grid households does exist (e.g. Alternative Fuel Payment). These communities also often live in non-traditional homes, such as house boats or mobile homes, which makes it more difficult for government support to reach them.

3.6 Challenges and coping strategies in the winter of 2022/23

The winter of 2022/23 was particularly challenging in terms of both the impact and rate of fuel poverty. Workshop participants noted that the type of challenges and coping strategies did not change much, but they had become more extreme. As one participant put it:

'Towards the beginning of the energy crisis, we saw people using their reserves, so if they had a bit of savings they were seeing it as a temporary problem so they were using up a bit of savings or borrowing from relatives and they were also making sensible adaptations at home [...]. This year we're finding people have used up those things so now they can't call in favours from friends and

⁶⁶ Ibid.

⁶⁷ Department for Energy Security and Net Zero. (2023). *Fuel poverty detailed tables 2023 (2022 data)*. Available at: <https://www.gov.uk/government/statistics/fuel-poverty-detailed-tables-2023-2022-data>

relatives anymore because they've used that up. [...] People have got nowhere to go any more. They've done all the sensible things and it's still not enough.' – Frontline advisor

Box 1 Wordcloud

The figure below shows a 'wordcloud' of the most frequent words used in the 17,409 Reddit comments and the 3,611 Mumsnet comments extracted based on discussion of fuel poverty and energy costs,⁶⁸ that were posted over the winter of 2022/23. The size of each word indicates the relative frequency at which it appeared.⁶⁹ Words highlighted in red indicate words that were directly searched for when extracting comments.

Figure 3 Common words in extracted comments from online forums, winter 2022/23



The representation of frequency in this way helps to elucidate the direct personal impact of fuel poverty ('people', 'family', 'kids'), how it closely relates to more general financial struggles ('money', 'bills', 'cost'), and its intrinsic link to living situation ('house', 'rent', 'mortgage').

Similarly, the help requested from charities on energy-related matters increased substantially. The number of energy-related cases dealt with by Citizens Advice rose to 34,920 in January 2023 compared to 19,842 in January 2022 and 16,663 in January 2021.⁷⁰ Similarly, energy-related charities also saw an increase of help requests. Calls to the National Energy Action (NEA)'s advice tripled in the six months leading up to December 2022 compared to the six months prior, and the number of

⁶⁸ Section 2 describes out how the sample of comments on online forums discussing fuel poverty and energy costs was determined for the online research strand of analysis.

⁶⁹ A full list of words in the wordcloud and their corresponding frequencies are included in Annex 2 of this report.

⁷⁰ Citizens Advice. (2023). *Citizens Advice Cost of Living dashboard*. Retrieved from: <https://public.flourish.studio/story/1634399/>

households helped by Severn Wye, a sustainability charity working in Wales and the West of England, increased by more than 60%.⁷¹ Workshop participants similarly noticed a surge in demand for support, but also for more complex support. One participant noted that telephone calls to energy companies are not only getting more numerous, but also more complex and longer. Another noted that households now return for help more frequently.

It is difficult to disentangle the effects of the energy prices from the broader cost of living crisis over the winter of 2022/23. Below, we try to focus on challenges stemming primarily from energy, using the themes used above.

3.6.1 Desperation

Workshop participants noted that households in fuel poverty have become increasingly desperate over the winter of 2022/23. One participant mentioned having seen clients who felt that they needed to resort to crime to be able to make ends meet. Another participant noted that fuel poor households increasingly sought support from organisations not serving their area, because they had exhausted the help available in their own area.

Desperation can lead to dangerous behaviour. One workshop participant mentioned that they increasingly saw people trying to bypass their gas meter. Such bypassing makes the meter reading lower than actual gas usage. It is, however, also dangerous to do so as it can lead to gas leakage in the home.

3.6.2 Affording energy

Rationing energy, heat and water were already mentioned as coping strategies in the sections above. Prior to the winter of 2022/23, households were already planning on such strategies. In autumn 2022, 88% were planning to put on more layers at home to stay warm, 81% were planning to leave the heating on for less time than usual (and 41% to turn it off completely) and 69% were planning to heat fewer rooms (“spatial shrinking”).⁷²

Participants in the workshops noted that such coping strategies did indeed become more common. Households in fuel poverty were using more unconventional – and more dangerous – heating and lighting methods to avoid using energy during the winter of 2022/23 compared to previous winters. For example, workshop participants noted households bought cannisters of gas (hoping to head off increases in gas prices), used space heaters, electric blankets, and hot water bottles, and used fire – such as tea lights and burning furniture in fireplaces – as sources of heat and light.

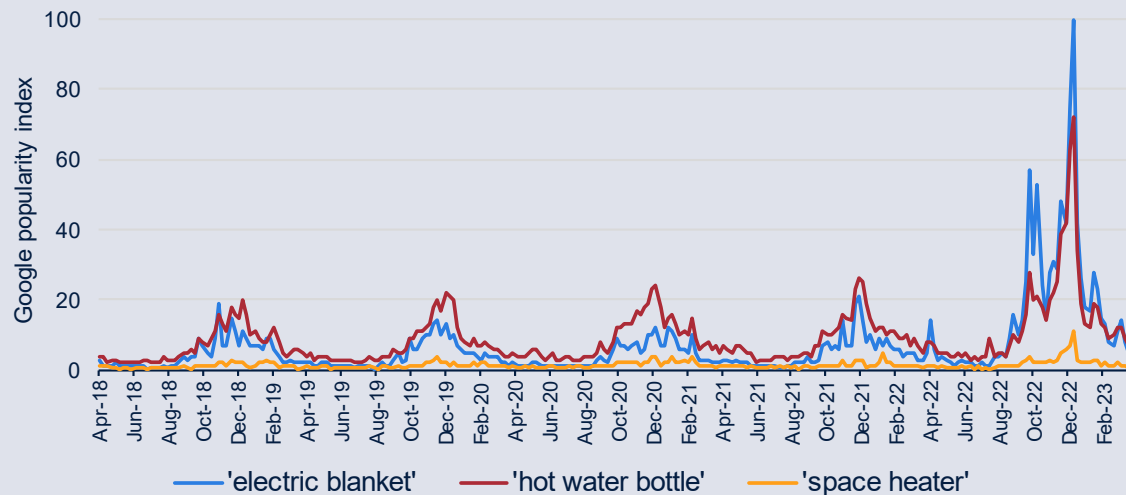
⁷¹ Nelson, E. (2022, 24 December). *Britain's Soaring Energy Costs Strain Crisis Responders*. The New York Times. Accessed: 23/02/2023; available at: <https://www.nytimes.com/2022/12/24/business/britain-energy-crisis-responders.html>

⁷² National Energy Action and Energy Action Scotland. (2022). *The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022*. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

Box 2 Coping strategies

The figure below shows the relative popularity of the search terms 'electric blanket', 'hot water bottle', and 'space heater' over the last five years based on Google Trends web search data. The index value is relative to the peak popularity of the most popular term (indexed at 100).

Figure 4 Web searches for fuel poverty coping strategies over the past five years



The data shows that while interest in these coping strategies had similar peaks over the preceding four winters, the peak for the winter of 2022/23 is substantially higher. Searches for electric blankets were roughly four times more popular in winter 2022/23 than the one preceding it, and hot water bottles roughly three times more popular. Searches for space heaters also spiked, though in general shows far less interest than the other two coping strategies. Overall, the winter of 2022/23 represents a clear break from previous winters in terms of prevalence of these specific coping strategies.

Workshop participants also noted an increase of self-disconnection over the winter of 2022/23. Younger people were self-disconnecting and moving back to their parents' homes. As mentioned previously, others were deliberately asking to be put on prepayment meters to provide a way of budgeting and in some cases self-disconnected if prices are too high.

Beyond rationing, fuel poor households spent time in community rooms, outside their own homes, to stay warm. By December 2022, over 3,000 so-called "warm banks" were in operation across the UK.⁷³ According to workshop participants, warm banks typically received around 45 people per warm space per week by March 2023; up from around 25 pre-Christmas 2022. More generally, people left the house to stay warm somewhere else. A survey in January 2023 by Age UK found that

⁷³ Haq, S.N. (2022, 25 December). 'Life or death:' As Britons buckle under the cost of living crisis, many resort to 'warm banks' for heat this winter. CNN. Accessed: 23/02/2023; available at: <https://edition.cnn.com/2022/12/25/uk/warm-banks-cost-of-living-crisis-intl-gbr-cmd/index.html>

5% of people aged 60+ (or 800,000 people) left the house to stay warm somewhere else, including warm spaces, public buildings, shopping centres or public transport.⁷⁴

Affordability of energy also has had knock-on effects on homes and tenure, with insufficiently heated homes being more susceptible to damp and mould. Citizens Advice reported 16,590 views of its “repairs – damp” webpage, compared to 8,195 in 2022.⁷⁵ Part of this may stem from the findings of the inquest into the death of Awaab Ishak caused by mouldy conditions in his house in November 2022. Here, the page views could be due to publicity and awareness as well as increased mould over winter. However, the number of page views remained high two months after the publication of the inquest, suggesting that not all of the page views were driven by publicity alone.

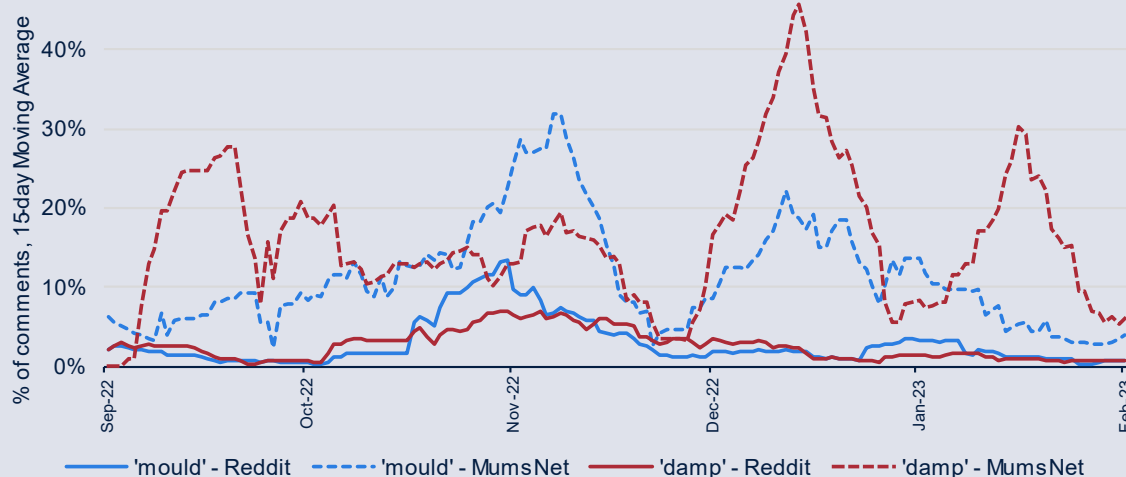
⁷⁴ Age UK. (2023). Keeping the lights on: The case for an energy social tariff. Available at: <https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/safe-at-home/age-uk-energy-public-policy-report-march-2023.pdf>

⁷⁵ Citizens Advice. (2023). *Citizens Advice Cost of Living Update February 2023*. Retrieved from: <https://public.flourish.studio/story/1834560/?full>

Box 3 Damp and mould

The figure below shows the proportion of extracted comments discussing experiences with energy and fuel poverty⁷⁶ on Reddit and Mumsnet over winter 2022/23 where either 'damp' or 'mould' was referenced. The reported proportions are based on a 15-day moving average to smooth out any large day-to-day fluctuations. As Mumsnet had far fewer total comments, proportions tended to be higher and more variable.

Figure 5 Extracted comments from online forums referencing damp and mould over time, winter 2022/23



The data shows that on both platforms, mentions of mould peaked around November 2022, coinciding with the publication of findings from the inquest into the death of Awaab Ishak (which found prolonged exposure to mould in his home was a causal factor).⁷⁷ Mumsnet also saw a further peak for 'mould' around the turn of the new year, at the same time as when almost 50% of fuel poverty-related comments referenced the word 'damp' on the platform. The prevalence of online discussion on these issues acts to highlight the scale of the problem around cold homes over the winter of 2022/23 and the potential health issues that may entail.

In terms of tenure, one workshop participant noted that private landlords have seen an increase in demand for all-inclusive renting, (i.e., with utility bills included). However, due to uncertainty on future energy prices, fewer landlords are willing to offer such contracts. As such, uncertainty on energy prices has also led to some uncertainty in the private rental market.

⁷⁶ Section 2 describes out how the sample of comments on online forums discussing fuel poverty and energy costs was determined for the online research strand of analysis.

⁷⁷ *Awaab Ishak: Prevention of future deaths report* published by the Courts and Tribunals Judiciary on 16 November 2022. Accessible here: <https://www.judiciary.uk/prevention-of-future-death-reports/awaab-ishak-prevention-of-future-deaths-report/>

3.6.3 Debt

Over the winter of 2022/23, more households fell into debt, often due to high energy costs.⁷⁸ At the end of December 2022, the average unsecured consumer credit per household in the UK stood at £7,449, and average secured debt (mortgages) stood at £58,497 per household.⁷⁹ Citizens Advice corroborates the specific impact of energy prices on this: the number of cases specifically dealing with energy debt that Citizens Advice has dealt with has increased markedly over recent years from 5,842 in January 2021 to 6,294 in January 2022 and 9,461 in January 2023.⁸⁰

3.6.4 Health and wellbeing

Mental health was also worsened by fuel poverty in the winter of 2022/23. Workshop participants noted, for example, that energy costs meant that people were not able to partake in leisure activities such as going out for coffee with friends. This has contributed to feelings of isolation and loneliness. Besides issues being more widespread, workshop participants also noted that existing mental health issues may have gotten worse. According to workshop participants, single men seemed to have been struck particularly badly with respect to mental health due to fuel poverty.

In the UK, a specific mental health concern was introduced in the winter of 2022/23: smart meter anxiety. Households struggling with their energy bills reported feeling anxiety and stress over the cost of energy displayed on smart meters. This is caused by smart meters screens showing energy used that day/week and the costs of these ticking up in real-time. This may have deteriorated mental health of some fuel poor households.⁸¹

3.6.5 Food and nutrition

In the wider context of the cost of living crisis, 45% of adults reported spending less money on food and essentials in December 2022.⁸² The available data makes it difficult to disentangle how much of this was caused primarily by energy prices, but there is indirect evidence of interplay between food and energy. For example, those on prepayment energy meters were more likely to report spending less on food; 59% of adults paying bills via prepayment meters reported spending less on food compared to just over 40% for those not on prepayment meters. This shows the link between energy and food decisions, possibly because households on a prepayment meter and spending less on food are both more likely to be on lower incomes. Moreover, the Office for National Statistics⁸³ highlighted that 70% of adults reported not being able to heat their house properly were also

⁷⁸ Nelson, E. (2022, 24 December). *Britain's Soaring Energy Costs Strain Crisis Responders*. The New York Times. Accessed: 23/02/2023; available at: <https://www.nytimes.com/2022/12/24/business/britain-energy-crisis-responders.html>

⁷⁹ The Money Charity. (2023). *The Money Statistics: February 2023*. Available at: <https://themoneycharity.org.uk/media/February-2023-Money-Statistics.pdf>

⁸⁰ Citizens Advice. (2023). *Citizens Advice Cost of Living Update February 2023*. Retrieved from: <https://public.flourish.studio/story/1834560/?full>

⁸¹ Smith, C. (2023, 6 February). 'I'm obsessed with my smart meter'. BBC News. Accessed: 23/02/2023; available at: <https://www.bbc.co.uk/news/business-64493048>

⁸² Office for National Statistics. (ONS). (2023, 30 January). *The impact of winter pressures on different population groups in Great Britain: 22 November to 18 December 2022*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/theimpactofwinterpressuresondifferentpopulationgroupsingreatbritain/22novemberto18december2022>

⁸³ Ibid.

worried about food running out. Again, this hints at food purchases being correlated with energy prices.

There is some evidence on worsening nutrition in the winter of 2022/23. 20% of adults reported having eaten smaller portions in December 2022, and – more importantly – reported having eaten food beyond the use-by date.⁸⁴ Eating food beyond the use-by date can lead to serious food poisoning.⁸⁵ Similarly, the workshops highlighted that more households have had to rely on foodbanks over the winter of 2022/23, and that more households decided to cut down on food purchases. Again, it is not possible to disentangle the role of the cost of food itself rising, and the increased cost of energy hindering people’s ability to pay for food here.

Lastly, the workshops highlighted changes in cooking habits over the winter of 2022/23 – batch and slow cooking as coping strategies have been mentioned in the sections above. These became more prevalent over the winter of 2022/23 to avoid having to use gas for cooking daily. Workshop participants also noted that fuel poor households were more likely in the winter of 2022/23 to use microwaves more and their ovens less. More generally, the workshop highlighted that fuel poor households have become more aware of their cooking habits and the impacts that these habits have on costs.

⁸⁴ Peachey, K. (2023, 30 January). *Cost of living: One in five eating food beyond use-by date*. BBC News. Accessed: 23/02/2023; available at: <https://www.bbc.co.uk/news/business-64452348>

⁸⁵ Note that the “use by” date differs from the “best before” date. “Use by” dates outline until when perishable food is safe for consumption. “Best before” guidance merely provides advice on best quality for consumption.

4 Support for fuel poor households

4.1 Government support

The support available to reduce fuel poverty differs fundamentally in structure and intent, depending on the exact policy, but can be broadly grouped into two categories:

- 1) support focused on directly alleviating high energy costs and household bills, predominantly short-term urgent support to help with the energy crisis over the winter of 2022/23; and,
- 2) policies focused on improving the energy efficiency of homes, which over the longer term will reduce household energy bills.

Overall, the government support provided over the winter of 2022/23 was significant, with workshops recognising that an unprecedented amount of money was made available for combatting fuel prices. The policies which were announced in advance particularly helped households to plan ahead and alleviate some uncertainty, as highlighted by workshop participants.

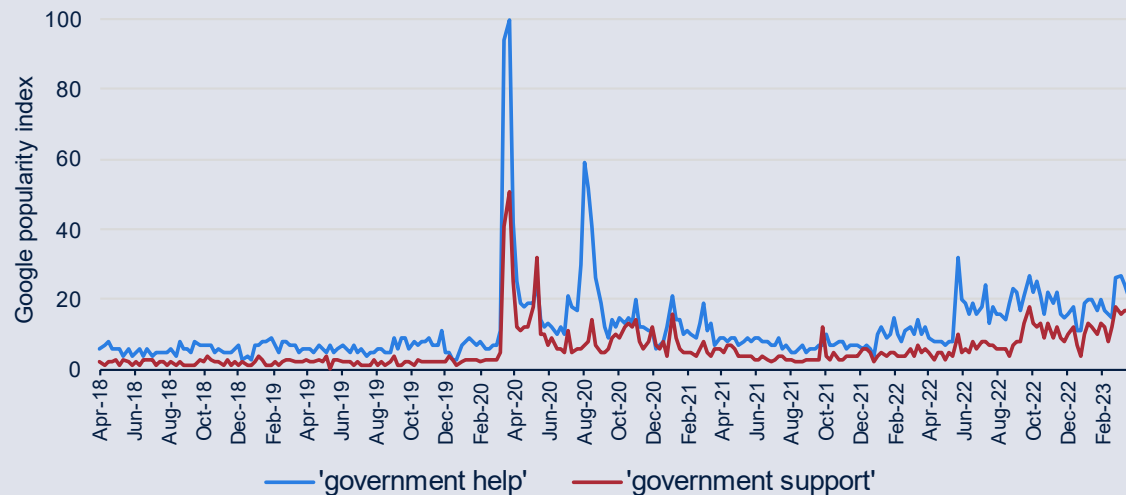
Nonetheless, policy can be improved. Workshop participants noted that the system of government support in England is complex, without a central location for information for households and stakeholders. Furthermore, communication from government on what support is available and who to contact can be improved. Under the current system, people are missing out on support because they do not know it exists.

In this section, we set out in more detail some of the strengths and weaknesses of government support related to fuel poverty, as reflected by the literature and perspectives of the workshop participants. Many of these policies will have accompanying evaluations which will more fully assess their effectiveness.

Box 4 Government assistance

The figure below shows the relative popularity of search terms ‘government help’ and ‘government support’ over the last five years based on Google Trends web search data. The index value is relative to the peak popularity of the most popular term (indexed at 100).

Figure 6 Web searches for government assistance over the past five years



The graph suggests that in 2020 and 2021, searches for government assistance correspond to COVID-19 related schemes, with the largest spike in search popularity for around the time of the first UK COVID-19 lockdown in March 2020. Searches for each term fall back to roughly their pre-pandemic level by winter 2021/22. There is then an increase in searches for government assistance from mid-2022, coinciding with the start of the rising cost of living and relevant policy announcements (e.g. announcement of the Energy Bills Support Scheme in July 2022⁸⁶) that is sustained through the winter of 2022/23. This overall provides evidence for a level change in search interest for government assistance associated with winter 2022/23, at a level not matched since the sharp peaks during the pandemic.

4.1.1 Support to directly alleviate high energy costs and household bills

In the winter of 2022/23, urgent government support focused on rebating or limiting the direct cost of energy. Some of these policies were open to all households, whereas others were more targeted. In particular, the non-targeted approach taken for some policies was considered a weakness in both the literature⁸⁷ and by the workshop participants. Some schemes also supported those who did not

⁸⁶ Published on gov.uk website on 29 July 2022. Accessible at: <https://www.gov.uk/government/news/400-energy-bills-discount-to-support-households-this-winter>

⁸⁷ National Energy Action. (2022). Written evidence submitted by National Energy Action (NEA). Available at: <https://committees.parliament.uk/writtenevidence/108394/pdf/>

appear to need as much help with paying their bills, allowing for less support being available for those struggling the most.

A high profile, untargeted rebate scheme was the Energy Bills Support Scheme (EBSS). Introduced at the start of 2022, this scheme provided a £400 payment to all energy bill payers. The scheme was criticised by frontline advisors in the literature and by workshop participants for the amount provided to fuel poor households; £400 was generally not expected by frontline advisors to be sufficient to cover the increase in energy prices and resolve problems stemming from energy bill unaffordability.⁸⁸

Although most households received the EBSS by their electricity supplier directly crediting their account, those on traditional prepayment meters had to be sent vouchers by their supplier with instructions as to the action they needed to take to get the credit on their meter. The workshops and the literature raised issues with the complexity of the scheme for households.⁸⁹ For those on prepayment meters, receiving the aid was more complex and put the onus on the consumer, leaving much support unclaimed. By March 2023, around 20% of vouchers were not yet claimed.⁹⁰

A related scheme, implemented in early 2023, was the Alternative Fuel Payment.⁹¹ This was a £200 payment (typically as credit on electricity bills) for those not on the main gas grid and relying on alternative fuel. Workshop participants suggested that a large amount of this support may have gone unclaimed since households were not aware they were eligible.

Financial support for household energy costs also continued to be available to low-income, fuel poor and vulnerable households through established schemes such as the Cold Weather Payment, the Winter Fuel Payment and the Warm Home Discount.

Similarly, untargeted support on household bills more generally was provided through a £150 council tax rebate. As with the EBSS, there was trouble getting this rebate to people due to implementation decisions. For example, those not paying council tax via direct debit did not automatically receive this support. Similarly, private renters for whom the landlord paid council tax did not receive the support, with the rebate going to the landlord instead.⁹² This may exacerbate

⁸⁸ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

National Energy Action and Energy Action Scotland (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

National Energy Action. (2022). Written evidence submitted by National Energy Action (NEA). Available at: <https://committees.parliament.uk/writtenevidence/108394/pdf/>

Climate Change Committee. (2022). *Independent Assessment: The UK's Heat and Buildings Strategy*. Available at: <https://www.theccc.org.uk/publication/independent-assessment-the-uks-heat-and-buildings-strategy/>

⁸⁹ Ibid.

⁹⁰ Department for Energy Security and Net Zero. (2023, 27 March). *Just three energy suppliers making up over 70% of all forced installation of prepayment meters*. Available at: <https://www.gov.uk/government/news/just-three-energy-suppliers-making-up-over-70-of-all-forced-installation-of-prepayment-meters>

⁹¹ Department for Energy Security and Net Zero. (2023, 6 February). *Households, businesses and organisations off the gas grid to receive energy bill support over the coming weeks*. Available at: <https://www.gov.uk/government/news/households-businesses-and-organisations-off-the-gas-grid-to-receive-energy-bill-support-over-the-coming-weeks>

⁹² Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

National Energy Action and Energy Action Scotland (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

any financial strains felt by those who privately rent, since, as mentioned previously, these households are more likely to face fuel poverty.

Support policies specifically targeted to vulnerable households and those in need were also implemented in the winter of 2022/23. These included:⁹³

- £650 for households receiving means-tested benefits (Cost of Living Payment);
- £150-£300 for households receiving winter fuel payments (Pensioner Cost of Living Payment); and,
- £150 for households receiving disability benefits (Disability Cost of Living Payment).

Although these policies were targeted at vulnerable households, they were not necessarily targeted on energy costs. Since the energy crisis is part of the wider cost of living crisis, payments were not necessarily used for spending on energy, and therefore may not have led to more households properly heating their homes.⁹⁴

In addition to payments, the Energy Price Guarantee (EPG) provided limits on the costs of energy that suppliers can charge. Workshop participants noted the overall success of the EPG, and some referred to it as the fundamental or main support provided over the winter of 2022/23. It was successful in limiting energy prices for fuel poor households. Moreover, workshop participants highlighted that the EPG probably had the most impact on fuel poor households. Furthermore, although this policy was not targeted specifically at vulnerable households, workshop participants highlighted that by capping unit costs rather than total costs, households with higher energy needs were implicitly targeted.

However, both the literature⁹⁵ and the workshops highlighted poor communication surrounding the EPG. It was introduced as “cost cap”, intending to cap the **unit** costs of gas and electricity. However, many households interpreted “cost cap” as a cap on the **total** price any household could pay on energy.

Lastly, the government provided emergency funding through the Household Support Fund to help Local Authorities in their work with vulnerable groups. While one of its intended uses was for alleviating rising energy costs, money provided through this fund was not exclusively for this

National Energy Action. (2022). Written evidence submitted by National Energy Action (NEA). Available at: <https://committees.parliament.uk/writtenevidence/108394/pdf/>

National Energy Action. (NEA). (2022). *Supporting Vulnerable Energy Customers Through the Energy Crisis. Policy Briefing*. Available at: <https://www.nea.org.uk/supporting-vulnerable-energy-customers-through-the-energy-crisis/>

⁹³ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

National Energy Action (NEA). (2022b). *Supporting Vulnerable Energy Customers Through the Energy Crisis. Policy Briefing*. Available at: <https://www.nea.org.uk/supporting-vulnerable-energy-customers-through-the-energy-crisis/>

GOV.UK (n.d.) *Cold Weather Payment*. Available at: <https://www.gov.uk/cold-weather-payment>

⁹⁴ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

⁹⁵ National Energy Action and Energy Action Scotland. (2022). The hardest hit: Impact of the energy crisis – UK Fuel Poverty Monitor 2021-2022. Available at: https://www.nea.org.uk/wp-content/uploads/2023/01/3830_NEA_Fuel-Poverty-Monitor-Report-2022_V2-1.pdf

purpose; and it could also be used for food and other essentials.⁹⁶ Workshop participants, however, noted that funding through this scheme was often unattainable since the amount of money available through the fund would run out in a short time. In particular, participants noted that money available through the fund was assigned to Local Authorities (LAs) who were quick to apply. This left no funding available for other LAs.

4.1.2 Policies to improve the energy efficiency of homes

In December 2014, the Government announced a new statutory fuel poverty target for England. The target is to ensure that as many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency rating of Band C by 2030. The Government also set interim milestones in the 2015 fuel poverty strategy for as many fuel poor homes as is reasonably practicable to Band E by 2020 (a target which the Committee on Fuel Poverty confirmed was missed⁹⁷) and Band D by 2025. Therefore, to meet these targets and address fuel poverty over the long-term, policies to help the fuel poor mostly, but not exclusively, focus on upgrading housing stock and improving energy efficiency. This is because the Government sees improving the energy efficiency of homes as the best way to tackle fuel poverty in the long-term while delivering on the Net Zero target. Other schemes include ongoing financial support to vulnerable households such as the Warm Home Discount scheme.

There are a number of important schemes that support the delivery of energy efficiency measures to eligible households: the Energy Company Obligation (ECO); the Green Home Grant local authority delivery scheme; the Home Upgrade Grant; and the Social Housing Decarbonisation Fund. Workshop participants noted the major shortcoming across these policies was that the policies tend only to provide short funding commitments. Due to this, it was highlighted that prospective installers of energy efficiency improvements are unwilling to invest in the necessary skills for such installations. As such, a shortage of the required skilled labour was apparent to workshop participants.

On specific policies, the largest of these is the Energy Company Obligation (ECO) scheme. ECO is a domestic energy efficiency scheme which places an obligation on larger energy suppliers to install energy efficiency and heating measures to people's homes in Great Britain. It has been in place since January 2013 and is currently in its fourth iteration, ECO4, which runs from April 2022 to March 2026. ECO4 is focused on low-income and vulnerable households living in the least energy efficient properties by improving the overall energy efficiency of a home by at least two EPC bands.⁹⁸

⁹⁶ National Energy Action (NEA). (2022b). *Supporting Vulnerable Energy Customers Through the Energy Crisis. Policy Briefing*. Available at: <https://www.nea.org.uk/supporting-vulnerable-energy-customers-through-the-energy-crisis/>

⁹⁷ Committee on Fuel Poverty. (2021) *Interim Report*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/998436/committee-on-fuel-poverty-interim-report-2021.pdf

⁹⁸ Department for Business, Energy & Industrial Strategy. (2021). *Sustainable Warmth: Protecting Vulnerable Households in England*. Available at: <https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england>

Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

Climate Change Committee. (2022). *Independent Assessment: The UK's Heat and Buildings Strategy*. Available at: <https://www.theccc.org.uk/publication/independent-assessment-the-uks-heat-and-buildings-strategy/>

A small group of workshop participants (predominantly made up of those representing energy suppliers) noted that the funding mechanism under ECO has proven to work well over its many iterations. However, the majority pointed out a number of caveats with the implementation:

- Some participants noted that energy suppliers may not have the correct incentive to help vulnerable households. For example, one participant noted the energy suppliers often focus ECO efforts on city centres because they are cheaper. Therefore, a supplier-led scheme may not be ideal.
- ECO4 targets the least efficient homes that are also low income and vulnerable. EPCs, however, do not necessarily reflect the degree to which households struggle with bills.
- Support under ECO4 may require a personal contribution from a household. Since ECO is targeted at low-income households, they often cannot afford these personal contributions.
- ECO4 is prescriptive in terms of energy efficiency improvements covered by the obligation (requiring, in most cases, a two EPC band improvement) . Some eligible households live in homes that are not suitable for that level of intervention. Although these households would be eligible for support under ECO4, ECO-obligated firms may assess that interventions are not feasible or cost-effective. For example, one workshop participant had experienced that insulation materials approved under the ECO4 scheme were not suitable for houses with solid walls because these materials cause a moisture risk.

The Warm Home Discount scheme was started in 2011 and provides for two types of support to vulnerable households. The first type involves energy bill rebates to eligible customers, as mentioned in the section above on support provided to address energy bill affordability. The second type – the Industry Initiatives – involves support such as energy saving advice, help with installation of energy efficiency measures and help reducing debt. Similarly to ECO, the Warm Home Discount is delivered by the energy companies, and overseen by Ofgem.⁹⁹ Workshop participants noted that eligibility for the Warm Home Discount has been overhauled in England and Wales, leaving some households previously relying on this scheme without support.

In addition to the long-term policy delivered by the energy companies, three grant schemes operate to upgrade housing stock to become more energy efficient.

The Green Home Grant Local Authority Delivery scheme provides grants to low-income homeowners and landlords to help them install energy efficiency and low-carbon heating measures in the worst energy efficient homes in England. The grant for local authority delivery scheme phase 3 reaches up to £10,000 for homeowners. The grant scheme is delivered by the local authorities, with phase 1 having started in 2021 and the most recent phase 3 having run until March 2023; with an optional managed closure period to 30th September 2023.¹⁰⁰

The Home Upgrade Grant is a scheme for homes off the gas grid in England. It similarly provides government-funded grants to low-income households to install energy efficient and low-carbon heating measures. The scheme is provided via local authorities and open to both owner-occupiers and tenants, working with their landlords. Phase 2 of the scheme will run from April 2023 to March

⁹⁹ Office of Gas and Electricity Markets. (2022). *Warm Home Discount. Annual Report 2021-2022*. Available at: https://www.ofgem.gov.uk/sites/default/files/2022-12/WHD_SY11_Annual_Report.pdf

¹⁰⁰ Department for Business, Energy & Industrial Strategy. (2021). *Sustainable Warmth: Protecting Vulnerable Households in England*. Available at: <https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england>

Climate Change Committee. (2022). *Independent Assessment: The UK's Heat and Buildings Strategy*. Available at: <https://www.theccc.org.uk/publication/independent-assessment-the-uks-heat-and-buildings-strategy/>

2025¹⁰¹. Funding was provided to Local Authorities via competitive tender in the first phase of the scheme. Workshop participants noted that Local Authorities that are already working on energy efficiency could be better placed to bid for funding; therefore there is a risk that some areas, where funding is needed, may be left behind. The competitive model has been amended to a challenge fund¹⁰² for the second iteration of the Home Upgrade Grant.

Lastly, the Social Housing Decarbonisation Fund (SHDF) provides government funding to social housing landlords to implement measures that help upgrade the energy performance of the social housing stock. The most recent wave (Wave 2.1) of the SHDF was launched in September 2022 to support the installation of energy performance measures in social homes in England. £778 million of government funding was allocated for Wave 2.1 of the SHDF in March 2023.¹⁰³ This built on the SHDF Demonstrator and SHDF Wave 1. Workshop participants felt that the focus on social housing landlords was a particular strength of this policy. Since social housing landlords tend to own blocks of homes, many homes can be upgraded in one go, allowing these upgrades to be delivered efficiently and at scale.

4.2 Other forms of support

Ofgem, as the independent energy regulator, also provides support for consumers. Through regulation, Ofgem seeks to protect consumers' interests, prevent bad practice in the industry and ensure fair treatment for all consumers, especially vulnerable consumers. For example, a key tenet of Ofgem's Vulnerability Strategy¹⁰⁴ is for energy suppliers to improve customer service for vulnerable groups, with suppliers responsible for identifying and supporting those who are in vulnerable circumstances and providing tailored customer service to consumers with specific needs (e.g. maintaining a telephone service for those who are digitally excluded).

On top of government programmes and regulation, support to vulnerable and fuel poor households has also been given via charity and community projects. The number of initiatives is too large to comprehensively cover here, but we outline common factors below.

Fuel poverty charities tend to focus on providing energy savings advice given to vulnerable and fuel poor households. For example, funding from phase 1 of the Energy Redress Scheme was used to provide different types of advice such as telephone calls, online advice, advice via events, and home visits. The scheme provides funding to charities helping vulnerable and fuel poor households by distributing money collected by Ofgem from energy companies and suppliers that have breached rules. Across the first phase of the funding (2018-2022), £35 million had been distributed.¹⁰⁵

Some initiatives combined "warm bank" initiatives, discussed earlier, with advice sessions. A particularly innovative one-off local initiative combined a game of bingo with an advice session. In this so-called 'energy bingo', every number called out in the bingo was related to an energy fact

¹⁰¹ Ibid.

¹⁰² In a challenge fund, all applications that pass the minimum requirements of the scheme are funded to some degree. In comparison, in a competitive tender, Local Authorities only received funding if they outperformed other bids.

¹⁰³ Department for Energy Security and Net Zero (2023). *Social Housing Decarbonisation Fund Wave 2.1: successful bids*. Available at: <https://www.gov.uk/government/publications/social-housing-decarbonisation-fund-wave-21-successful-bids>

¹⁰⁴ Ofgem. (2019). *Consumer Vulnerability Strategy 2025*. Available at: <https://www.ofgem.gov.uk/publications/consumer-vulnerability-strategy-2025>

¹⁰⁵ Energy Savings Trust. (2022). *Ofgem Energy Redress Scheme Evaluation Report. November 2022*. Available at: https://energyredress.org.uk/sites/default/files/inline-files/Evaluation%20Report%201_0.pdf

provided on the bingo sheet. Organisers and attendees to the bingo suggested this ‘energy bingo’ was effective in stimulating discussion among attendees.¹⁰⁶

Originally initiated by an energy supplier in 2015, fuel banks from the Fuel Bank Foundation are now open to customers of all British energy suppliers and run as an independent charity. The banks are in some ways equivalent to food banks; low-income household can receive short-term emergency energy when they have run out of money to pay for energy.¹⁰⁷ The Fuel Bank Foundation works with over 490 partners, including food banks, advice agencies and charities. It claims to have helped over 750,000 across the UK, with over 225,000 in 2022.¹⁰⁸

Recognising the impacts of cold homes on health (as discussed above), some more holistic approaches to tackling fuel poverty have been trialled. A pilot study in Gloucestershire over the winter of 2021/22 saw health staff (including but not limited to GPs) “prescribe” heat, which provided vulnerable consumers with access to help and heating.¹⁰⁹ Such prescriptions continued in the Gloucestershire area following the pilot,¹¹⁰ and an expanded pilot was conducted during the winter of 2022/23 in the Tees Valley and Aberdeenshire.¹¹¹

4.3 Further support needed

Whilst recognising the unprecedented nature of energy bill support in the winter of 2022/23 particularly, workshop participants agreed that further long-term support on energy bill affordability and energy efficiency would be needed in order to meet government fuel poverty targets in 2025 and 2030. We present the main suggestions from workshop participants below, supported by relevant literature where applicable. Assessing the feasibility of these proposals was not within scope of this study, and as such should not be taken as policy recommendations.

4.3.1 Social tariffs

Although wholesale energy prices have fallen from their highest levels in summer 2022, there is a significant lag time before these are passed on to the prices that consumers pay, as energy suppliers are expected to act cautiously on their pricing.¹¹² High prices for consumers are therefore likely to persist into the longer term.

A social tariff was proposed in all workshops to protect fuel poor households from unaffordable costs. A social tariff is a targeted and discounted energy package for eligible consumers, typically set

¹⁰⁶ Community Action on Fuel Poverty. (n.d.). *Energy Efficiency Bingo*. Available at: <https://fuelpovertyresource.org.uk/community-action/warming-up-britain/ruth-winston/>

¹⁰⁷ Department for Business, Energy & Industrial Strategy. (2021). *Sustainable Warmth: Protecting Vulnerable Households in England*. Available at: <https://www.gov.uk/government/publications/sustainable-warmth-protecting-vulnerable-households-in-england>

¹⁰⁸ Fuel Bank Foundation. (2023). *Fuel Crisis Report 2023*. Available at: <https://www.fuelbankfoundation.org/wp-content/uploads/2023/02/Fuel-Bank-Fuel-Crisis-Report-2023.pdf>

¹⁰⁹ Energy Systems Catapult. (2022). *Warm Home Prescription - Pilot report*. Available at: <https://es.catapult.org.uk/report/warm-home-prescription-pilot-report/>

¹¹⁰ Nelson, E. (2022, 24 December). *Britain's Soaring Energy Costs Strain Crisis Responders*. The New York Times. Accessed: 23/02/2023; available at: <https://www.nytimes.com/2022/12/24/business/britain-energy-crisis-responders.html>

¹¹¹ Energy Systems Catapult. (2023). *Warm Home Prescription trial aims to save NHS time and money by paying energy bills of vulnerable over winter*. Available at: <https://es.catapult.org.uk/news/warm-home-prescription-trial-aims-to-save-nhs-time-and-money/>

¹¹² House of Commons Library (2023). *Gas and electricity prices under the Energy Price Guarantee and beyond*. Available at: <https://commonslibrary.parliament.uk/research-briefings/cbp-9714/>

below the price of the cheapest tariff available on the market.¹¹³ The approximate cost of such a scheme (depending on who it targets and the level of support on offer) is estimated to be in the region of £5-10 billion.¹¹⁴

From this definition, a natural question arises: who should the social tariff target? Workshop participants agreed that eligibility criteria should account for both energy need and people's incomes. Possible suggestions for those who should be eligible included those in receipt of means test benefits, disability benefits and carer's allowance, as well as those using alternative fuels.¹¹⁵ However, this may leave significant groups out who do not claim benefits but are still struggling, for example those with high energy needs due to medical conditions.

As such, there is an opportunity for data sharing to help identify fuel poor households and their needs, thus enabling policies to be targeted more effectively. One proposed system, mentioned by workshop participants and recently put forward by the Social Market Foundation, would match HMRC Real Time Information on taxpayer incomes with data from energy suppliers on consumption, ensuring no one slips the net.¹¹⁶ Benefits of such a system include being able to offer a sliding scale of support based on eligibility, avoiding sharp cliff edges where small changes in circumstances lead to large changes in the level of support. In addition, data sharing would enable auto-enrolment, which would benefit vulnerable consumers, who may be less able to access support available to them.¹¹⁷

4.3.2 Improving energy efficiency of homes

Over the longer term, there was consensus amongst the literature and workshop participants that in order to reduce fuel poverty, the energy efficiency of the housing stock would need to be improved (and accelerated). Energy efficiency improvements can reduce bills and increase comfort for consumers, as well as reduce overall demand for energy and carbon emissions.

In 2022, there were 12.6 million households living in homes rated EPC Band D or below, of which 3.3 million are estimated to be fuel poor.¹¹⁸ It has been estimated that £18 billion would be needed to reach the target if no further policy change is implemented.¹¹⁹ With currently committed spending lower than this level, and significant behavioural change also required to encourage adoption of energy efficiency measures¹²⁰, more investment on energy efficiency is needed from

¹¹³ National Energy Action and Fiar by Desisng. (2022). *Solving the Cost of Living Crisis*. Available at: https://www.nea.org.uk/wp-content/uploads/2022/07/2022_Solving-the-cost-of-living-crisis_v02.pdf

¹¹⁴ Age UK (2023). *Keeping the lights on: The case for an energy social tariff*. Available at: <https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/safe-at-home/age-uk-energy-public-policy-report-march-2023.pdf>

¹¹⁵ Ibid

¹¹⁶ Social Market Foundation and Public First. (2023). *Fairer, warmer, cheaper. New energy bill support policies to support British households in an age of high prices*. Available at: <https://www.smf.co.uk/wp-content/uploads/2023/03/Fairer-warmer-cheaper-March-2023.pdf>

¹¹⁷ National Energy Action and Fiar by Desisng. (2022). *Solving the Cost of Living Crisis*. Available at: https://www.nea.org.uk/wp-content/uploads/2022/07/2022_Solving-the-cost-of-living-crisis_v02.pdf

¹¹⁸ Department for Energy Security and Net Zero. (2023). *Fuel poverty detailed tables 2023 (2022 data)*. Available at: <https://www.gov.uk/government/statistics/fuel-poverty-detailed-tables-2023-2022-data>

¹¹⁹ AgilityEco. (2021). *The Government's 2030 Fuel Poverty Target in England: Are We on Track?* Available at: https://www.agilityeco.co.uk/sites/default/files/agilityeco_are_we_on_track_-_october_2021.pdf

¹²⁰ Kerr, N., & Winskel, M. (2018). *Private household investment in home energy retrofit—reviewing the evidence and designing effective public policy*. ClimateXChange, Edinburgh. Available at: <https://www.climatechange.org.uk/media/3146/cxc-epe-evidence-review-full-report.pdf>

the government.¹²¹ Workshop participants also noted that EPCs do not necessarily reflect the extent to which households struggle with energy bill affordability. As such, further investment would also be required to support households in EPC Bands A, B and C, who may also benefit from energy efficiency upgrades.

To ensure homes can be upgraded, workshop participants called for a national, long-term strategy from central government. The strategy should map out a commitment and pathway to transition for every household, such that it is clear to consumers how to upgrade their home most cost-effectively with the lowest payback time, as well as what support they may be eligible for.

Such a strategy would also send signals and mandates for obligation and enforcement to key stakeholders (landlords, local authorities, social housing providers) in the market, providing them with long-term certainty needed to increase investment beyond that from central government. It was noted for example that there is not sufficient enforcement of the Domestic Minimum Energy Efficiency Standard Regulations and the Decent Homes Standard (which set standards for private rental properties and social homes, respectively) to incentivise landlords to invest in improving the quality and energy efficiency of properties. Long-term certainty was a theme, mentioned across several workshops, that was necessary to drive action. The National Infrastructure Commission have also recently called on the government to set out its commitments on this remit, in order to ensure there are no supply chain squeezes.¹²²

The presence of a skills gap is a key barrier for uptake of measures¹²³ and was mentioned in two of the workshops. If consumers are unable to find skilled installers, they won't then be able to install energy efficiency measures. With the scale of the energy efficiency improvements needed by 2030, there is an opportunity to develop new employment opportunities and career pathways, particularly in communities with high levels of fuel poverty. The £9.2 million Home Decarbonisation Skills Competition¹²⁴ funded by the Government recently awarded projects to successful training providers. However, at present it is unlikely there will be a large enough skilled workforce available to deliver.¹²⁵ Therefore, setting out a strategy for how to ensure there are the people with the right set of skills to make upgrades was deemed very important by workshop participants. One workshop participant compared the scale of action needed equivalent to what was done for High Speed Rail, with the set-up of the National College of High Speed Rail in Birmingham and Doncaster offering apprenticeships and training to deliver the large infrastructure project.

As with energy bills support, government funding on energy efficiency measures needs to also be better targeted to fuel poor households.¹²⁶ In 2021, the annual budget for fuel efficiency was around

¹²¹ National Energy Action (NEA). (2022a). *Written evidence submitted by National Energy Action (NEA)*. Available at: <https://committees.parliament.uk/writtenevidence/108394/pdf/>

¹²² National Infrastructure Commission. (2023) *Infrastructure Progress Review 2023*. Available at: <https://nic.org.uk/app/uploads/IPR-2023-Final.pdf>

¹²³ Hargreaves, R., Karpathy, Z., Griffin, P. (2022) *Domestic Retrofit Market Intelligence & Skills Assessment*, Greater South East Net Zero Hub. Available at: <https://es.catapult.org.uk/report/domestic-retrofit-market-intelligence-skills-assessment/?reportDownload=https://es.catapult.org.uk/wp-content/uploads/2022/11/GSENZH-Skills-Assessment-Report-final.pdf>

¹²⁴ Department for Energy Security and Net Zero. (2023). *Home Decarbonisation Skills Training Competition: successful projects*. Available at: <https://www.gov.uk/government/publications/home-decarbonisation-skills-training-competition-successful-projects>

¹²⁵ Local Government Association (2022) *Retrofit Skills Discussion Paper*. Available at: <https://lga.moderngov.co.uk/documents/s40473/5%20FINAL%20PPB%20Retrofit%20Skills%20Paper.pdf>

¹²⁶ Committee on Fuel Poverty. (2021). *Annual Report October 2021*. Available at: <https://www.gov.uk/government/publications/committee-on-fuel-poverty-annual-report-2021>; and, Hodgkin, R and Sasse, T. (2021).

£3 billion, of which only £0.6 billion was specifically allocated to fuel poor households. Instead, funding often ends up with households with higher incomes.¹²⁷ In this respect, participants in two of the workshops noted that the competitive bid processes for local authority funding, such as the Sustainable Warmth Competition¹²⁸, favour local authorities which have resources and capacity to write bids. However, these may not be the areas with the highest levels of fuel poverty and most in need. Reiterating the point made above around long-term certainty, competitive bids also do not provide certainty to local authorities of the funding they will receive, meaning planning a decarbonisation strategy and support for fuel poor households in their areas is difficult. Workshop participants noted that further grant-based support should, where possible, be awarded directly based on need.

Workshop participants in four of the workshops discussed a preferred ‘place-based’ or ‘street-by-street’ approach. Such an approach would focus on offering bespoke energy efficiency advice and support to a particular geographic area, rather than delivering support to particular low income or demographic groups and risking missing those just above the cut-off out. Advantages to such an approach include it being a more cost-effective method of delivery and easier for supply chain management because workforces are in one location. One workshop participant highlighted that this type of approach also leverages on behavioural norms (known as ‘social proofing’) whereby people adopt others’ behaviours and tend to update their homes alongside their neighbours.

4.3.3 Who should lead on implementation?

Section 3 demonstrated the complexity of the challenges faced by fuel poor households. As a result, there are multiple actors who have a role to play in implementing further support.

Across the workshops, there was a consensus that the role of central government should be to set the objectives, overarching national strategy, and mandates for delivery. Since fuel poverty spans multiple dimensions, including health, education and welfare (see Section 3), a cross-departmental approach was suggested. This is to ensure there is joined-up thinking on policy development and objectives across departments who have a stake in this issue. For this to work effectively, one workshop participant suggested there may be a role for a single department, such as the Cabinet Office, Treasury or the Department for Work and Pensions, to draw the different departments together.

With regard to delivery, all workshops that were prompted to discuss this (four of the six) viewed regional bodies (i.e. local authorities) as the most trusted actor, although it was noted that they currently lack the resources to target and help those most in need, which impacts their ability to help.¹²⁹ Local bodies were preferred due to their knowledge of the community groups they serve and their ability to collaborate and deliver projects on a street-by-street basis (see above).

Tackling the UK's energy efficiency problem: What the Truss government should learn from other countries. Institute for Government. Available at: <https://www.instituteforgovernment.org.uk/publication/tackling-uk-energy-efficiency-problem>

¹²⁷ Committee on Fuel Poverty. (2021). *Annual Report October 2021*. Available at: <https://www.gov.uk/government/publications/committee-on-fuel-poverty-annual-report-2021>

¹²⁸ The Sustainable Warmth Competition combined the Local Authority Delivery Phase 3 and the Home Upgrade Grant Phase 1. Local authorities who were successful in the bidding process are published here: <https://www.gov.uk/government/publications/sustainable-warmth-competition-successful-local-authorities>

¹²⁹ Lee, A., Sinha, I., Boyce, T., Allen, J. & Goldblatt, P. (2022). *Fuel poverty, cold homes and health inequalities*. London: Institute of Health Equity.

In addition, the community and voluntary sector are already delivering other forms of support and may continue to play a role in delivering a place-based approach. One workshop participant mentioned faith groups, for example, and their role in delivering warm spaces for the community. Central government may want to consider how best to nurture and provide resources to the community and voluntary sector such that it is able to provide alternative support networks for fuel poor households.

The role of a national advice service was also put forward in three workshops. In order to help households navigate the energy market and the support available to them, trained energy experts are vital to signpost and often solve challenges that consumers are facing.¹³⁰ There are a range of organisations that support the advice sector including Citizens Advice, National Energy Action and Energy Savings Trust. However, with no national energy advice service or single point of contact in place currently, workshop participants broadly agreed that there is fragmentation of energy advice with regard to the services on offer and a ‘postcode lottery’ faced by fuel poor household when trying to access support, with some facing long wait times due to very high demands on the advice system. A national advice line could also help with targeting, identifying consumers who come to them for support. On this point, the Government has recently launched a new energy efficiency phonenumber service (alongside online information provided at gov.uk), to provide consumers with tailored and impartial information on how to improve the energy performance of their homes. The service’s effectiveness has not yet been evaluated. However, it would be useful to explore further how this service contributes to improving energy advice and information for consumers.

Energy suppliers also have a role to play in the energy advice sector. Some workshop participants said they would like to see stronger enforcement by Ofgem, ensuring that suppliers act in line with commitments made in the Vulnerability Strategy. They felt that better customer service and good practice across the industry would alleviate some of the pressures felt by the third sector, who are having to deal with consumer complaints and provide additional support.

¹³⁰ Bouzarovski, S., Crowther A., Simcock N., (2023). *The UK needs a national energy advice service*. Available at: <https://theconversation.com/the-uk-needs-a-national-energy-advice-service-197176>

5 Conclusions and areas to explore further

Fuel poor households face a wide range of challenges, from affording their energy, to getting into debt, to suffering from poor health and nutrition. In the winter of 2022/23, faced with rising costs, there was a deepening and broadening of fuel poverty. To alleviate the effects, some fuel poor households have resorted to more extreme coping strategies to ration their energy use, compromising their health, wellbeing and, in some cases, safety.

The landscape is undoubtedly complex: with multiple links between challenges, there is no linear path determining someone's *"living experience"*¹³¹ of fuel poverty.

Acknowledging the challenges and the existing policy framework, the findings of this report suggest the direction of travel to meet the government's fuel poverty targets in 2025 and 2030 should focus on 4 key principles, with further research needed to consolidate these proposals:

1. Streamlined set of support measures developed across government departments

Whilst the complexities surrounding fuel poverty may offer more opportunities to intervene, it is important that the policy landscape does not echo this complexity. Policies should be easily accessible for all households, including those who are digitally excluded, use prepayment meters, or alternative fuels. Navigating complex policy frameworks and eligibility criteria is difficult for the average consumer, let alone those who have lower resilience to cope. A holistic approach is recommended, including joined up thinking across government departments, to develop a concise set of policies to help those most in need with bill affordability is crucial.

2. Harnessing available data to identify and target those most in need

There is limited information on who is truly fuel poor and where they live. Data sharing can offer a potential solution for this and enable policies to be targeted at those most at need. Further work is needed to explore the feasibility of matching suppliers' data on energy consumption with HMRC Real Time Information and other useful data that may be available (e.g., national health data) to build an accurate picture of who is fuel poor.

Through identifying those in fuel poverty, policies, such as a social tariff, can be targeted effectively at those most in need, with systems ideally being set up to be as automatic as possible, placing less burden on the consumer to seek help.

3. Improving energy advice and information

Navigating the energy market and the support available was identified as a challenge, particularly for vulnerable consumers who may be less active in the market. People need to understand how energy efficiency affects their energy bills and the practical steps to improve energy efficiency for their homes. To facilitate this, they need to be aware of and understand what support is on offer to them. This would enable those most in need to receive the support they are eligible for and ensure support does not go unclaimed.

¹³¹ Watters D. (2021) Social Distance in Social Work COVID Capsule One; Watters D. (2023) Lived experience of fuel poverty. 23-25 January 2023, NEA Conference, Birmingham. Slides available at: <https://www.nea.org.uk/wp-content/uploads/2023/02/Dominic-Watters.pdf>

Improving advice and energy information available would prevent there being difficulties accessing advice and support available. Possible ways this could be achieved include setting up a single point of contact for fuel poor households to access support and stricter enforcement of energy suppliers to provide better customer service and information.

4. National coordination and strategy, regional delivery of energy efficiency measures

A long-term strategic partnership is needed between central and local governments to coordinate implementation of energy efficiency upgrades. Improving energy efficiency is vital to reducing fuel poverty over the longer term, reducing bills and improving comfort for consumers. Every fuel poor household needs a pathway for upgrading the home.

Central government should provide the overall strategy, long-term reassurances to the market, and mandates for delivery. With greater knowledge of the communities they serve and their needs, local governments should be provided with funding necessary to deliver initiatives to improve efficiency of fuel poor homes. Amongst the industry experts who participated in the workshops, there was a preference for a place-based or street-by-street approach, which would focus on one street at a time delivering bespoke and tailored advice and support to each household, ensuring no one slips the net. This, along with other types of approaches such as a social tariff, should be explored further to determine which may be most suitable to address the needs of fuel poor households.

Collaboration with other actors, including the community and voluntary sector, the energy sector and healthcare professionals is also important given the multiple dimensions of fuel poverty.

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Annex 2 Wordcloud raw data

Table 4 below provides the raw data used to generate the wordcloud in Figure 3. This lists the 250 most frequent words used in the 17,409 Reddit comments and the 3,611 Mumsnet comments over the winter of 2022/23 that were extracted based on the keyword list of fuel poverty related terms. Words with asterisks indicate that these words were directly searched for when extracting comments (the words highlighted in red in Figure 3).

Table 4 Raw data for the wordcloud of online comments (in descending order of frequency)

Word	Frequency	Word	Frequency	Word	Frequency	Word	Frequency
people	6233	around	2256	water	1506	done	1145
house	4892	way	2232	afford*	1484	flat	1143
help*	4886	bills*	2157	enough	1483	full	1140
time	4751	bill	2147	living	1464	situation	1132
pay	4174	credit	1943	family	1463	made	1117
work	4174	first	1933	look	1458	little	1111
need	4108	job	1877	costs	1449	price	1109
now	3953	buy	1827	working	1435	away	1104
year	3877	sure	1813	find	1430	bed	1096
money	3658	cost	1799	mould*	1418	let	1095
think	3614	last	1792	food	1401	looking	1083
month	3597	used	1779	anything	1399	problem	1080
years	3522	may	1745	days	1398	parents	1073
energy*	3412	winter*	1741	income*	1344	start	1073
even	3322	keep	1737	property	1331	different	1069
home*	3305	every	1730	heat*	1330	electricity*	1063
old*	3302	live	1727	hours	1306	free	1062
day	3264	right	1718	point	1306	another	1058
going	3166	tax	1704	room	1296	school	1058
know	3066	better	1692	using	1275	support*	1043
make	3037	months	1692	account	1267	already	1041
back	2720	paying	1664	end	1265	move	1014
want	2711	meter*	1654	government*	1264	anyone	1012
heating*	2700	car	1646	give	1262	worth	1007
good	2663	long*	1635	without	1254	everyone	1004
still	2633	thing	1613	electric	1244	company	1001
cant*	2622	someone	1574	amount	1232	since	999
rent*	2546	week	1571	advice	1226	big	992
take	2404	cold*	1565	place	1221	person	990
gas*	2341	less	1540	landlord*	1207	ask	983
debt*	2340	mortgage	1528	try	1202	everything	980
kids*	2287	fuel*	1524	best	1171	couple	972
things	2285	able	1523	high	1171	set	961
see	2279	feel	1517	paid	1170	due	955
well	2272	child*	1507	save	1165	issue	954
new	2257	life	1506	damp*	1160	savings	952

Word	Frequency	Word	Frequency	Word	Frequency	Word	Frequency
bad	942	change	854	monthly	763	local	696
leave	942	told	850	pension	762	weeks	696
trying	942	warm*	850	private	760	sounds	694
left	938	spend	846	tell	758	given	693
interest	936	run	844	post	752	financial	690
part	936	student*	841	hard	749	companies	688
care	933	great	837	saying	749	cut*	688
prices	918	small	829	hot	746	clothes	684
currently	912	children	828	plan	744	similar	679
least	912	housing*	826	buying	739	term*	679
council	907	night	825	idea	739	taking	677
top	906	open	823	please	739	cheaper	674
current	905	stop	820	higher	736	spending	674
times	902	moved	805	air	734	saving	673
stuff	900	expensive	802	system	732	needed	670
usage	896	partner	797	understand	732	hour	669
health*	895	windows	794	boiler	731	whole	667
rate	891	case	785	eat*	725	increase	666
loan	881	payment	785	thought	724	call	664
reading	877	card	783	salary	723	area	660
went	877	issues	781	london	721	based	658
nothing	876	extra	780	social*	720	gets	654
far	870	making	779	single*	711	yet	653
needs	869	often	778	half	709	plus	649
likely	860	check	776	started	699	benefits	648
mum	859	worry*	775	especially	698		
low*	855	bank	771	possible	697		

Note: Words marked with asterisks indicate that these words were directly searched for when extracting comments (the words highlighted in red in Figure 3).

Source: London Economics' analysis



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