

Survey of research community

To inform fuel poverty strategy
development in England

March 2024



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1 Summary: Headline messages

1. Energy efficiency and heating interventions have a positive impact on beneficiaries' health and well-being and are cost effective with respect to wider social benefits. However, failure to include ventilation and heat recovery measures, if required, or to ensure high standards of installation can potentially result in adverse health impacts.
2. Substantial investment is needed in order for the government to meet its 2030 fuel poverty target. According to some estimates, a further £18 billion expenditure is required to current levels. An estimated £8 billion of this shortfall could be met by restoring the MEES uplift to EPC C, as originally proposed by the government.
3. ECO funds need to be more effectively targeted at areas with high levels of fuel poverty. Delivery of retrofit programmes needs streamlining, complexity reduced and skill shortages and other barriers addressed.
4. Low-income consumers need more support to pay their energy bills. This could be provided through an emergency tariff, a social tariff, reform of the Warm Homes Discount (WHD) or a minimum energy allowance. The last of these would require minimal public funding.
5. It is essential that policies are introduced now to ensure a fair transition to net zero, such as free or discounted access to heat pumps, inclusive flexibility services and a strategy for enabling consumer participation in decarbonisation programmes.
6. Adopt complementary indicators to the LILEE indicator which better reflect the level of hardship many households face due to recent fuel price rises. Independent research and stakeholder engagement would facilitate this.

2 Summary of findings

The FPRN Committee conducted a survey of FPRN subscribers with a request to share evidence, research findings or information they felt the UK Government should consider for its fuel poverty strategy review.

Health

There is clear evidence that energy efficiency and heating interventions have a positive impact on health and well-being, including better self-reported health, reduced high blood pressure and concomitant cardiovascular strain, reduced asthma (which leads to fewer days off work and school), reduced falls and reduced use of health care services, particularly when interventions target people with existing health conditions.

While energy interventions are cost effective with respect to wider social benefits, cost effectiveness with respect to use of health services is less clear.

Retrofits must include ventilation and heat recovery measures; failure to do so can result in adverse health effects. Sub-standard installation and technologies not functioning properly can also result in minimal or adverse health effects.

Retrofit

Recent research suggests the government is not on track to meet its 2030 fuel poverty target, mainly because of insufficient expenditure on retrofit. Two reports suggest a shortfall of £18bn. This would reduce to £10bn if the government went ahead with its original proposal to raise MEES in private rental properties to EPC C by 2028.

Research suggests the Energy Company Obligation (ECO) is not well targeted at areas with the worst levels of fuel poverty. However, there is evidence of particularly high levels of ECO take-up among Asian origin, owner-occupier households in energy inefficient terraces and among households in the industrial north of England.

The current variety of retrofit schemes is confusing and administration complex. Local authorities would find it easier to deliver retrofit at scale by making energy efficiency a national infrastructure priority that is cross tenure and includes an offer for the able to pay. This would enable area-based approaches.

Practical barriers to retrofit include skills shortages, inflation that render scheme costings redundant, competition between multiple schemes, lack of data matching/information governance, no support for the NHS pathway for referring people with cold-related illnesses to ECO4 and batch processing of applicants causing scheme drop outs.

Research into other countries' retrofit policies identifies good practice, such as the integration of retrofit with energy security policies, streamlined delivery of programmes and the provision of independent, comprehensive advice.

Energy bill support

Research provides evidence to support the case for improved help with energy bills to offset the steep rise in energy prices. Proposals include an emergency tariff, a social tariff, reform of the Warm Home Discount scheme and a minimum energy allowance for all consumers. The costs of the latter could be met through higher tariffs for consumers with high consumption.

Net zero

Research highlights the challenges faced by the fuel poor with respect to demand side response, such as time of use tariffs; policy measures are proposed for addressing such challenges.

Research is needed on participation in decarbonisation initiatives, i.e. who can participate and to what degree, what are the limits of participation, what motivates or demotivates citizens, how can they be better supported.

High costs are inhibiting the take up of heat pumps. The National Infrastructure Commission recommends the provision of free heat pumps to low income families.

The ongoing 'smart and fair' research project addresses social justice and includes a code of conduct for flexibility services, an Energy Choices Tool and a trial to explore low-carbon technology uptake by low income households.

Energy advice

While current advice programmes offer helpful support to households, they often do not bring about substantial change due to short-term and fragmented provision, e.g. they only offer single visits. Research is also needed on the long-term impacts of energy advice provision.

LILEE indicator

There is evidence that the LILEE indicator does not adequately reflect the level of hardship many households face due to fuel price rises. Several commented that the 10% indicator better reflects hardship and noted that this measure is now widely used by the media. The government's own statistics suggest that 3.29m households were in LILEE fuel poverty in 2022, compared to 7.39m households on the AHC 10% fuel poverty measure.

Research could address the issue by assessing the extent to which the EPC C target adequately addresses hardship or through exploring the concept of minimum energy standards, i.e. the amount of energy required to enable a household to participate in society with dignity.

There were calls for a UK-wide measure of fuel poverty and the development of a pan-European measure. WHD should be removed from fuel costs; this would also negate the need for the FPEER scale which few people recognise.

Many countries now use a number of indicators to assess fuel poverty. The UK government could consider adopting a complementary indicator to LILEE to better reflect energy hardship. Independent research and stakeholder engagement would facilitate this.

Further research

Proposals for research included:

- how energy interventions actually work: what kinds of interventions are most effectively coupled to best effect;
- the fuel and transport poverty faced by people in rural, outer cities and marginalised estates;
- the impact of fuel poverty on babies and young children;
- the growing problem of summer overheating;
- addressing the disadvantage faced by Britain's three million Economy 7 consumers.

Other Government priorities and cross-sectoral partnerships

At the national level respondents called for:

- a high level cross-departmental fuel poverty working group that straddles Government departments DESNZ, DLUHC, DHSC and DWP;

- assessment of the co-benefits of reducing fuel poverty e.g. with respect to improvements in education, health, employment and skills and local enterprises;
- improvements to DWP data matching to ensure more support is delivered automatically to the fuel poor;
- a national strategy for public engagement with net zero.

At the local level respondents called for:

- a funded (capital and revenue) statutory duty on local authorities to produce a fuel poverty strategy and action plan for meeting the 2030 fuel poverty target at a local level;
- a requirement for councils to work in partnership with the NHS, other statutory agencies, housing associations and the voluntary sector in meeting the local fuel poverty duty;
- the allocation of resources to local authorities according to the spatial-temporal distribution of fuel poverty, rather than through competitive processes; “a duty to refer” households in fuel poverty, in a similar way to those at risk of homelessness.

3 Background to survey

The UK Government's Department for Energy Security and Net Zero (DESNZ) is undertaking a review of the Fuel Poverty Strategy for England (BEIS, 2021: [Sustainable Warmth: Protecting Vulnerable Households in England](#)). As part of the review, Minister Solloway and the DESNZ Fuel Poverty team are gathering stakeholder views, research insights and evidence. To support the review, the FPRN Committee conducted a short survey of FPRN subscribers to share evidence, research, or information that they felt the UK Government should consider.

The survey was conducted over a three-week period during February 2024. This report is a summary of responses to the survey. Respondents included academics, local authority representatives and NGO researchers (20 people responded to the survey). The appendix to this report includes a copy of the survey form.

4 Insights from recent research into understanding of fuel poverty

4.1 Groups vulnerable to fuel poverty

Several studies shed light on different groups' vulnerability to fuel poverty, e.g. Petrova & Simcock (2019)¹; Feenstra & Clancy (2020)²; Robinson (2019)³ provide evidence on gender and fuel poverty. For example, most research considers the whole household rather than individual members' experiences of energy consumption. These reports show that in general more women than men struggle to afford the energy they need. While economic factors are a key contributor to fuel poverty, biological/physiological and socio-cultural factors also play a role.

Middlemiss (2022)⁴ provides a summary of groups vulnerable to energy poverty and their experiences. This helps articulate the scope of existing research, who are vulnerable, what their homes are like and what people do in them, and the kinds of effects they experience. People from disadvantaged groups (disabled people, lone parents and people from ethnic minorities) are more likely to experience energy poverty. Energy poor households adopt a variety of coping practices (including in extreme cases managing without energy at all) to address their situation. Energy poverty also has a major impact on their health, social life and home finances.

4.2 LILEE indicator

Several respondents referred to evidence that the Low Income Low Energy Efficiency (LILEE) indicator does not adequately reflect the level of hardship many households face due to the dramatic rise in fuel prices over the last 3 years, e.g. Bradshaw & Keung (2022)⁵. The Age UK research on social tariffs and National Energy Action (NEA) research on expenditure shortfall (see below) both use the original 10% measure of fuel poverty in their estimates of the level of fuel poverty⁶.

Several respondents commented that the 10% indicator is seen as a more credible reflection of the level of energy hardship than the LILEE indicator, with one noting that the 10% indicator is now widely used in media reports of fuel poverty. Others suggested adopting a complementary indicator to LILEE to reflect levels of energy hardship in the country.

4.3 Health

While there is long standing research evidence on the relationship between cold homes/ unaffordable energy and poor health and well-being, several respondents referred to recent research on specific health issues, e.g.

- The influence of gender on health and fuel poverty (Oliveras et al, 2021)⁷.
- The impact of poor indoor air quality and damp housing on respiratory conditions. See the little lungs audio story <https://www.youtube.com/watch?v=ghICRdvOgrY>
- The Impact of room temperature and extreme thermal conditions (Yoon Yi, et al 2022)⁸.

An evaluation of Energy System Catapult's Warm Homes on Prescription (WHP) service (which targets people with cold related health conditions, such as respiratory and cardiovascular) found the service improved beneficiaries' health, slowed the deterioration of ill health, and that there was some evidence of reduced use of health services (Sheffield Hallam, 2023)⁹.

A literature review of health impact assessments of energy programmes (review available on request) carried out for WHP, concluded that energy efficiency and heating interventions have a positive health and well-being impact, including better self-reported health, reduced high blood pressure and concomitant cardiovascular strain, reduced asthma (which led to fewer days off work and school), reduced falls and reduced use of health care services, particularly when interventions targeted people with existing health conditions. There is evidence that energy interventions are cost effective with respect to wider social benefits; this is less clear cut with respect to the use of health services alone.

The review also stressed that retrofits must include ventilation and heat recovery measures; failure to do so can result in adverse health effects. Sub-standard installation and technologies not functioning properly can also result in minimal or adverse health effects.

4.4 Entrenched fuel poverty

One respondent referred to evidence of spatially persistent and temporally entrenched fuel poverty over a 10-year period (Bridgen & Robinson 2023)¹⁰. The research identified five groups of local authorities: Sustained Energy Affluence; Fluctuating Energy Affluence; Changeable Middle; Fluctuating Energy Deprivation; and Entrenched Energy Deprivation. However, it also found that the targeting of ECO was disappointing: local authorities with entrenched energy poverty typically received less support compared to areas where energy poverty fluctuated or was less severe.

4.5 Retrofit expenditure

Several respondents referred to recent research that suggests the Government is not on track to meet its 2030 fuel poverty target, mainly because of insufficient expenditure on retrofit. AgilityEco and NEA both suggest a further £18bn expenditure (above current levels) is required to meet the target (AgilityEco, 2021; NEA, 2024)¹¹. The estimates for both reports were based on modelling work carried out by Gemserv to assess the costs of meeting the 2030 target compared with current levels of expenditure. The NEA report assessed the term 'reasonably practicable' as meaning a cost limit for upgrades at £24,000 per property.

The NEA research estimates that £8bn of the shortfall could be found by raising the Minimum Energy Efficiency Standard (MEES) to EPC C, as proposed in the Government's 2020 consultation but abandoned in 2023 (HM Government, 2020)¹².

CSE referred to research it is carrying out for DESNZ and the Committee for Fuel Poverty to assess current energy efficiency and low carbon schemes. This includes an evaluation of current financial and supply chain support. Initial findings suggest that current levels of support are not sufficient for meeting the 2030 target.

4.6 Energy bill support

Various research reports provide evidence to support the case for improved help with energy bills for low income households due to the steep rise in energy prices since 2021, e.g.

- The Environmental Change Institute (ECI) proposal for an emergency tariff to address the extreme hardship faced by many low income households due to high prices. It goes on to argue that the tariff could be implemented quite speedily (ECI, 2023)¹³.
- Age UK's proposal for a social tariff (Age UK, 2023)¹⁴. This sets out the number of households that would benefit from a social tariff; the annual cost of the tariff; and the annual increases in energy bills for households if the costs of the tariff were levied on energy bills. Citizens Advice similarly advocates the introduction of a social tariff and has also called for reform of the Warm Home Discount scheme (Citizens Advice, 2023 & 2024)¹⁵.
- NEF's proposal for a national energy guarantee (NEF, 2023)¹⁶. This proposes all energy consumers receive sufficient energy, free or low cost, to cover their basic energy needs. The costs of this would be met through higher tariffs for consumers with high consumption. It also proposes measures to protect low-income high consumption consumers.

4.7 Fuel poverty and net zero

One report suggested that net zero commitments do not necessarily undermine progress on meeting fuel poverty targets and can indeed provide long term resilience (Green Alliance, 2024)¹⁷.

However, other research makes the case for positive action to make sure net zero policies are fair and inclusive (Sustainability First, 2023)¹⁸. One respondent referred to the serious cost concerns that inhibit the take up of heat pumps and drew attention to the National Infrastructure Commission's recommendation to provide free heat pumps to low-income families (NIC, 2023)¹⁹.

One report examines how other areas of policy intersect with energy policy. This is important for better understanding the risks that vulnerable households face from net zero (Middlemiss et al, 2023)²⁰.

One research report highlighted the challenges energy poor households might encounter in engaging with demand side response, such as time of tariffs, and proposes a series of policy measures for how these can be addressed (Calver & Simcock, 2021)²¹.

CSE's Smart and Fair Programme addresses social justice in the energy transition. The work includes an evaluation of the National Grid ESO's Demand Flexibility Service, qualitative research to inform a code of conduct for flexibility services, an Energy Choices Tool (designed to advise users on suitable types of smart products, tariffs and services) and qualitative research and a trial to explore low-carbon technology uptake and use by low-income households (CSE, 2024)²².

4.8 Energy poverty and transport poverty

People who are both socio-economically deprived and living in a spatially peripheral location with poor transport links (often rural, but also those on the edge of cities or in marginalised estates) are most at risk of experiencing this double vulnerability (Simcock et al, 2021)²³.

4.9 Energy advice

Research shows that while current advice programmes offer helpful support to households, they are often unable to bring about substantial change due to a combination of short-term and fragmented advice provision (most programmes are only funded to offer a single visit, for example) and structural barriers (e.g. a complex energy market, meagre welfare system, limited energy efficiency funding) (Simcock & Bouzarovski, 2023)²⁴.

5 Gaps in understanding of fuel poverty

Many examples were given of current gaps in our understanding of fuel poverty. Respondents also made suggestions on how these gaps might be addressed.

5.1 LILEE indicator

A number of respondents called for development of either a new measure of fuel poverty or return to the former 10% indicator – ideally using After Housing Costs (AHC) and equivalised incomes. One respondent suggested the UK government take an approach similar to that of the Scottish Government when it revised its fuel poverty indicator. This involved extensive stakeholder consultation as well as research from an independent body.

The difference in the two measures is stark. According to the Government's own statistics, the number in fuel poverty on the LILEE indicator in 2022 was 3.26 million - a slight rise from 3.16m in 2020. In comparison, the figures for the 10% AHC indicator was 4.3m and 7.39m - a dramatic increase, and a reflection of the impact of fuel price rises (DESNZ, 2024)²⁵

Research could investigate whether improving low-income homes to EPC C is sufficient to address energy hardship, given current levels of energy prices. Improved understanding of fuel hardship could be addressed through both qualitative research and secondary data analysis of, for example, Living Costs and Food Survey (LCFS), English Housing Survey (EHS), Census, Ofgem data using proxy indicators for fuel poverty.

One respondent called for the UK and devolved governments to agree a UK-wide measure of fuel poverty. There was also a suggestion to develop a pan-European measure of fuel/energy poverty.

One respondent commented that it was not appropriate to include the Warm Home Discount (WHD) in the Fuel Poverty Energy Efficiency (FPEER) rating scale. Some low-income households living in D rated properties are classified as not living in fuel poverty which arguably creates a false picture. Exclusion of WHD from the FPEER would also make the requirement for the FPEER scale redundant and instead allow policy, programmes and practitioners to use EPC ratings alone, a scale that is widely understood and recognised (while still needing improvement).

Another respondent commented that the current definition overly focuses on cold homes and that a broader definition and understanding is required. This should focus on (in)adequate energy services and encompass excess heat as well as excess cold.

Several respondents commented that many countries now use a number of indicators to assess fuel poverty. The UK government could consider adopting a complementary measure of fuel poverty to the LILEE measure to better reflect energy hardship. Independent research and stakeholder engagement would facilitate this.

5.2 Specific groups in fuel poverty

Disability

Research is needed on the interaction between fuel poverty and disability, particularly specific impairment groups (e.g. their different experiences and energy needs), the extent to which fuel poverty shapes the health of disabled people and how it affects the choices they make. Research should also explore the extent to which they are able to benefit from fuel poverty schemes and ways in which we can reach this group.

Children and babies

There is limited research on the impact of room temperature (thermal comfort) on babies. Yet babies are classed as vulnerable and the impact of cold can be fatal. There is also little research on children below the school age.

5.3 Support for fuel poor households

More evidence is needed on:

- How energy interventions actually work. For example, one research report found that interventions are often multifaceted (e.g. they offer energy advice, renovation work, and benefits checks). More work is needed to establish what kinds of interventions are most effectively coupled to best effect (Middlemiss et al, 2023)²⁶.
- Gaps highlighted in the Adverse Weather and Health plan evidence document need addressing to ensure policy solutions are appropriate and effective (UK Health Security Agency, 2024)²⁷. Co-production of research would strengthen the evidence base.
- Summer energy poverty is becoming more important: there is only limited investigation of its impact in the UK. Research could investigate how this issue is identified in other countries, particularly Southern Europe where the problem is most acute.
- How to deliver support to fuel poor households who do not have access to the benefits system. For example Age UK's research into the feasibility of a social tariff also includes an overview of the impact of fuel poverty schemes on those in receipt of benefits support and those who are not (Age UK, 2023)²⁸.
- The long-term impacts of energy advice provision (most evaluations only look at the impact over a few months or at most one year). This could involve investigating the impact of advice programmes over a period of three to five years, including return visits and interviews with people who have received advice to check on whether they are continuing to benefit. The approach would most likely be qualitative (e.g. ethnographic) but could also include some quantitative measurements.

5.4 Energy efficiency

Research is needed on the overlap between the location of fuel poverty need and inadequacies in domestic energy efficiency: this could be addressed through analysis of property-level energy efficiency EPC data and fuel poverty estimates.

Research is needed on the long-term impacts of energy efficiency retrofits on health and well-being of occupants, combining both lived experience data with direct evidence of health improvements, e.g. hospital admissions data, blood pressure measurements or other clinical conditions.

5.5 Debt

Research is needed on the cost of maintaining energy supply to low-income consumers and the implications for longstanding and ongoing fuel poverty.

Research is needed on the availability and flexibility of fuel company trust fund awards.

5.6 Decarbonisation

Research is needed on:-

- The nuances of participation in decarbonisation initiatives, i.e. who can participate and to what degree, what are the limits of participation, what motivates or demotivates citizens, how can they be better supported. This could be addressed through qualitative data collection, surveys, interviews, workshops etc.

- How potential and actual heating transitions, especially heat networks, heat pumps and hydrogen, may affect fuel poverty.
- Low-income households' experience of low carbon heating technologies and flexible demand services. This could be addressed through qualitative research into people's experiences, learning lessons from consumers' experiences of time of use tariffs such as Economic 7 and distributional impact analysis of current adopters of new technologies/services.
- How to both maximise the potential synergy between decarbonisation and energy poverty and address the risks. See, for example, Sherriff, Butler & Brown, 2022²⁹.

5.7 Housing affordability

There is little research on the links between fuel poverty and the housing crisis (lack of affordable housing). This could be addressed through bringing data together from different surveys, such as the EHS, LCFS, 2021 Census and ONS housing affordability data.

Research is needed on the most effective policies to reduce energy poverty in private-rented housing. Research could examine international comparisons, through a systematic literature review and interviews with key stakeholders. It should also consider how to improve housing quality without creating other unintended consequences, e.g. rent increases, low-carbon gentrification and displacement, housing shortages.

5.8 Energy hardship

Research is needed on minimum energy standards, i.e. how much energy is required for a household to participate in society with dignity. This could be addressed by using a similar approach to the Welsh Government's minimum digital living standard³⁰.

Research is needed on the extent to which low-income households in EPC C properties might still be experiencing energy hardship. Research could go on to explore how such hardship might be best addressed (e.g. through higher standards, income or fuel price measures) and which groups are most affected. Research instruments could include qualitative research with householders in EPC C homes and secondary data analysis of, for example, LCFS, EHS, Census and Ofgem data.

6 Are current programmes sufficient for meeting the 2030 fuel poverty target?

6.1 ECO, HUG and LAD

There was a mixed response to views on the success of the Energy Company Obligation (ECO) from respondents. AgilityEco commented that after an initial slowdown of activity due to the switch from ECO3 to ECO4, delivery has increased again and is delivering significant benefit (AgilityEco, 2024)³¹. Conversely, monthly DESNZ figures suggest that Home Upgrade Grant (HUG) delivery is disappointing. This was considered due to the small number of eligible homes and complicated batch delivery process.

Targeting of ECO:

- One research report showed ECO was not well targeted on areas with the worst levels of fuel poverty. These areas were shown to have received only the third greatest number of ECO interventions of the five clusters identified (Bridgen & Robinson, 2023)³²
- Another report examined which groups are most likely to apply for ECO grants. This found that low income Asian origin, owner-occupier households in energy inefficient terraces applied

for ECO incentives at a rate twelve times higher than expected. It also found very high numbers in the industrial north of England (Owen et al, 2023)³³.

Several respondents argued that the current variety of schemes is confusing and administration complex. Local authorities would find it easier to deliver retrofit at scale by making energy efficiency a national infrastructure priority that is cross tenure and includes an offer for the able to pay to allow area-based approaches.

One respondent commented that the current eligibility criteria for schemes is too complex and narrow. They suggested instead using low disposable income after housing and energy costs, quoting Barnsley's affordable warmth scheme as an example³⁴.

Several respondents referred to the decline in energy efficiency activity since CERT and CESP. NEA's 2023/3 fuel poverty monitor suggests that £18bn further funding is needed for energy efficiency schemes if the government is to hit its 2030 target (NEA, 2024)³⁵. This entails a further £10bn for ECO, HUG & LAD, with the remainder £8m met by private landlords required by regulation to meet an EPC C standard.

6.2 Minimum Energy Efficiency Standards (MEES)

Several respondents referred to issues with MEES, including the Government's decision not to proceed with its original proposal to raise MEES to EPC C by 2028. One research report identified the following weaknesses:

- The current minimum standard of EPC Band E is too low, as it is insufficient to lift a household out of fuel poverty.
- The cost-cap is too low - £3,500 is often not enough to install transformative measures (solar panels, wall insulation, new heating systems), especially in older or hard to treat properties. More funding support is needed to enable landlords to undertake larger measures.
- The complicated system of exemptions - this needs simplifying.
- Lack of local authority capacity to enforce the regulations due to lack of resources. Environmental health teams are already stretched and many were cut due to austerity.

Another respondent referred to the Government's own analysis of the expected impact of raising the standard to EPC C: the improvement of 900,000 low-income tenants' homes to the C standard, with a further 360,000 improved but not to the target C standard. At an average per property spend of £4,700, this would have unlocked just under £6bn of investment from private landlords. It has also created uncertainty for private rental landlords about the Government's future intentions.

6.3 Energy bill support

Several respondents argued that current bill support policies, such as the Warm Home Discount, Winter Fuel Payment and Cold Weather Payments, are not of sufficient scale to address the steep rise in fuel prices. Research to underpin the case for improved support include:

- ECI's proposal for an emergency tariff, as described above (ECI, 2023).
- Citizen Advice's proposal for a social tariff (Citizens Advice, 2023)³⁶.
- Citizens Advice's proposal for reform to the Warm Home Discount scheme³⁷. This calls for a tiered WHD scheme with expanded eligibility and differential support based on energy need. Such a scheme would provide support of up to a third of a typical bill (currently around £600 to low income households with the highest energy costs).
- Age UK's proposal for a social tariff, as described above (Age UK, 2023). Age UK carried out further analysis to show that its social tariff proposals would have lifted 2.2m households out of fuel poverty (Age UK, 2024)³⁸.

Sustainability First highlighted the disadvantages faced by Britain's 3m Economy 7 consumers and called for action by Ofgem to address this (Sustainability First, 2023)³⁹.

Several reports make the case for more fundamental reform of energy market structures to make energy more affordable:

- NEF's proposal for a national energy guarantee, as described above (NEF, 2023).
- Sustainability First referred to forthcoming research that will map financial support and eligibility criteria across water, energy and telecoms to understand if there are certain groups of customers in poverty that are consistently missing out on help across the three essential services. This should help to inform the eligibility criteria of any future support.

6.4 Challenges to meeting the 2030 fuel poverty target

Not surprisingly, many respondents commented on the challenges presented by the recent dramatic rise in energy prices and the broader cost of living crisis. Furthermore, energy prices are expected to stay at a level much higher than those of 2021, at least in the medium term. Global factors, such as the Ukraine war, regional conflicts in the Middle East and the outcomes of elections in many countries during 2024 are likely to further contribute to volatile energy and wider commodity/service prices.

- Several respondents commented that the funding of government fuel poverty programmes is insufficient to meet the scale of need given current energy prices, cost of living, high inflation and endemic low pay. The research by AgilityEco, 2023 and NEA, 2024 has already been quoted in this respect. See also, Hannon & Brown, 2022⁴⁰. One respondent suggested that – whilst the housing stock is being brought up to high energy-efficiency standards – resources could be spent on keeping the bodies, rather than the homes, of the fuel poor warm. They gave the example of a heated seat cover⁴¹.
- Respondents also referred to the challenges created by the scrapping of the MEES uplift, delay in government action to introduce MEES in the social rented sector and lack of government regulation of the owner occupier sector.
- Several respondents referred to practical barriers to retrofit, such as scheme complexity, skills shortages in the trades, inflation rendering scheme costings redundant and lack of certainty over wider financial policy (e.g. rent policy) in social housing. Other barriers include competition between multiple schemes, lack of data matching / information governance issues, no support for the NHS pathway for referring households with cold-related illnesses to ECO4 and batch processing of applicants causing scheme dropouts.
- One respondent referred to the current level of benefits as being insufficient to sustain adequate living standards given the current rate of inflation, particularly for the under 25 cohort. This is a major contributor to the 'poverty' element of fuel poverty.
- Several respondents commented that the decarbonisation of heat and growth of flexible demand services to meet net zero targets present new challenges with respect to making sure low-income consumers are not excluded and fuel poverty not exacerbated (RAP, 2024; Owen & Barrett, 2020; Sustainability First, 2023)⁴².

7 Lessons from other countries

7.1 Energy poverty policies in Europe

Several reports give an overview of both EU and individual member states' approaches to tackling energy poverty (Bouzarovski et al, 2021; Cludius et al, 2018; European Commission, 2021)⁴³.

Retrofit

Several respondents commented that other European countries have adopted more ambitious retrofit programmes than England, in part driven by the EU renovation wave. In 2020 the European Commission set targets to double the number of comprehensive building renovations from 1% to 2% of the EU's housing stock per year⁴⁴.

The Energy Saving Trust (EST) and Green Alliance investigated policies that other countries have adopted in response to the energy crisis that aim to both cut costs and reduce emissions. It considers key lessons from the international examples for UK policy making, highlighting their potential to reduce emissions, cut household costs and improve energy security at home. Examples of good practice included the integration of retrofit with energy security policies, the streamlined delivery of programmes and the provision of independent, comprehensive advice (EST & Green Alliance, 2023)⁴⁵. EST intends to follow this up with a policy briefing on 'Accelerating retrofit thought advice and information' (publication forthcoming).

Indicators of fuel poverty

The Netherlands has developed a multi-indicator approach to understanding fuel poverty (rather than the single indicator used in England (Straver et al, 2020)⁴⁶.

One research report describes a tool for identifying hotspots for local action and comparative analysis. It also identifies heating and cooling problems (Gouveia et al, 2018)⁴⁷.

Overheating in summer

Several respondents suggested that while overheating is a more severe problem in Southern European countries, it is likely to become more commonplace in the UK in future years. We can therefore learn from experiences in other countries (Torrego-Gómez et al, 2023)⁴⁸.

This report looks at urban heat island effects (Oliveira et al, 2022)⁴⁹.

Health

The EU funded WELLBASED programme consists of pilot projects in 6 European countries to reduce energy poverty and its effects on beneficiaries' health and well-being. The model involves actions at 4 levels: individual lifestyle; social & community networks; living & working conditions; socio-economic, cultural & environmental conditions. Findings from the programme, due for completion in 2025, could provide valuable lessons for practice in the UK (Stevens et al, 2022)⁵⁰.

8 Other Government priorities and cross-sectoral partnerships

8.1 National

Several respondents called for a high-level cross-departmental working group or taskforce led by a minister with power and budget. One respondent felt that the task force should review the current fuel poverty strategy and produce an action plan to address fuel poverty at a national level.

One respondent commented that aligning fuel poverty solely to DESNZ carbon reduction policies results in insufficient attention to housing and local govt and income/welfare drivers, solutions and issues. Fuel poverty strategy should straddle such Government departments as DESNZ, DLUHC, DHSC and DWP.

Several respondents suggested the government should assess the co-benefits of reducing fuel poverty e.g. with respect to improvements in education, health, employment and skills and local enterprises.

Several respondents referred to the important role DWP and Treasury plays in the setting of benefit levels and tax credits. The DWP could also improve its data matching processes to ensure more support is delivered automatically to fuel poor households.

One respondent called for an investigation into how employment, economic and urban regeneration policies interact with fuel poverty: could they be targeted to try and help the fuel poor more, what is needed for those who can't work?

Other policy improvements that could have an impact on tackling fuel poverty include new build housing standards, MEES policy and enforcement, person-centred area-based delivery, retrofit skills expansion and a strategy for public engagement with net zero.

8.2 Local

Several respondents advocated a funded (capital and revenue) statutory duty on local authorities to produce a fuel poverty strategy and action plan for meeting the 2030 fuel poverty target at a local level. Councils should work in partnership with the NHS, other statutory agencies, housing associations and the voluntary sector in meeting this duty.

Central government should allocate resources to local authorities according to the spatial-temporal distribution of fuel poverty, rather than through setting up competitive processes. It should also enact "a duty to refer" households in fuel poverty, in a similar way to those at risk of homelessness.

One respondent highlighted the financial straits most councils are in after years of austerity. They went on to advocate a long-term strategy to build local authority capacity on energy matters, particularly in those locations where fuel poverty is greatest.

Appendix – Questions

Questions about fuel poverty research

The following questions concern recent research on fuel poverty. Please provide concise answers.

Since the last Fuel Poverty Strategy was published in February 2021, how has research contributed to our understanding of fuel poverty?

Please give examples of themes covered and links to papers and reports where relevant. Where providing links, please provide a short commentary that explains what the outputs contribute.

What do you consider to be the major gaps in our understanding of fuel poverty and how can research more effectively address them?

Please briefly describe the themes and suggest research approaches.

Is there evidence of the extent to which current fuel poverty programmes (e.g. Energy Company Obligation, Local Authority Delivery and Home Upgrade Grant schemes, minimum energy efficiency standards in the private rental sector, Warm Home Discount) are meeting the Fuel Poverty Strategy's targets and milestones?

Please give examples and links to relevant papers and reports. Where providing links, please provide a short commentary that explains what the outputs contribute.

What do you consider to be the main challenges to meeting the Fuel Poverty Strategy's targets and milestones, particularly those that have arisen since publication of the Strategy in 2021?

Are there any lessons from other countries that can help inform policy and practice in England?

Please give links to relevant papers and reports. Please provide a short commentary that explains their potential relevance to England

Which other Government policies and priorities do you consider fuel poverty policy and programmes should more closely engage with? How might this facilitate progress on the Fuel Poverty Strategy?

How can we ensure effective cross-sectoral partnership working to tackle fuel poverty?

Please provide brief suggestions.

Anything else you would like to add?

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