

# Response to the Department for Business, Energy and Industrial Strategy (BEIS) 'Fuel Poverty Strategy for England' Consultation



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fprncommittee@gmail.com  
<http://www.fuelpovertyresearch.net>  
@FuelPovertyRN

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## About the Fuel Poverty Research Network (FPRN)

The [Fuel Poverty Research Network](#) (FPRN) was established in 2015 by researchers concerned with the interaction between people, homes and energy. Our work is underpinned by four core principles:

- **Collaborating:** creating opportunities for collaborative working within and between sectors in order to promote a stronger collective voice and increase the potential for impact
- **Uniting** policy, practice and academia in pursuit of the eradication of fuel poverty
- **Disseminating and communicating** fuel poverty research and intelligence to peers and end users
- **Impacting:** maximising opportunities for informing and shaping policy and practice.

The network was formed in response to the fact that there was no single forum where the producers and users of fuel poverty research and intelligence could come together. There were and remain, sub-sets of existing learned societies and associations dedicated to fuel poverty or the study of domestic energy more broadly, but these groups tend to focus on either the academic or the policy perspective. The FPRN seeks to unite these two communities and indeed all of those with an interest in the resolution of fuel poverty, with the aim of promoting constructive and creative dialogue and creating an environment conducive to securing policy impact and positive change.

The network now comprises almost 200 members from across the academic, policy, voluntary and community and private sectors. The network mainly operates within the UK but has attracted membership from the Netherlands; Australia and New Zealand and continues to expand internationally.

A coordination group oversees the work of the FPRN and has drafted this response to the consultation. Our response therefore does not necessarily reflect the views of the full membership of the FPRN. Furthermore, we have not attempted to provide definitive answers to all the consultation questions. Instead our response aims to:

- A. Provide comments on some of the main questions within the consultation, drawing upon key themes that current research seeks to address
- B. Suggest priorities for future fuel poverty research, drawing upon a major survey carried out for Eaga Charitable Trust by two members of the FPRN coordination group.

## Section A

# FPRN COORDINATION GROUP RESPONSE TO CONSULTATION QUESTIONS

### 1. Proposal to update the fuel poverty metric to Low Income Low Energy Efficiency (LILEE)

We consider it useful to draw upon current understanding of general poverty and its measurement when considering the measurement of fuel poverty. It is now widely accepted by policy makers, academics and practitioners that poverty is **relative** to the place and time you live in. By contrast **absolute poverty** is characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information (UN, 1995).

**Relative poverty** understands poverty as relating to the minimum acceptable standards of living within the society in which a particular person lives. It encompasses lack of income and productive resources to ensure sustainable livelihoods, limited or lack of access to education and other basic services, increased morbidity and mortality from illness, homelessness and inadequate housing, unsafe environments, social discrimination and exclusion and lack of participation in decision making and in civil, social and cultural life (UN, 1995).

This concept of relative poverty recognises that many factors contribute to deprivation. It develops Peter Townsend's position that deprivation should not be seen only in terms of material deprivation but also in the social exclusion from 'the ordinary patterns, customs and activities' of society (Townsend, 1979).

Professor John Hills wanted to introduce the concept of relative poverty into the measurement of fuel poverty, with the Low Income High Costs (LIHC) measure: "*This is akin to the relative measurement of poverty: as average incomes rise, if incomes within the poorest households do not rise, poverty is seen as deepening*" (Hills, 2012, p35). Hills advocated a relative measure of fuel poverty to encourage a "*virtuous policy cycle*" in which policies prioritise the fuel poor - "*it hardwires a concern for the distributional impact of policies*" (ibid, p35 & 36). Hills also introduced a second gap indicator as a measure of the severity of fuel poverty experienced by households identified as fuel poor by the LIHC indicator.

However, as the consultation highlights, the LIHC indicator has resulted in a 'stable over time' proportion of households identified as fuel poor and an extensive level of fuel poverty churn. This has made it difficult for the government to track progress against the government's fuel poverty target and assess the impact of fuel poverty policies on its target and milestones. Many of the FPRN's local government and local energy agency members have also commented that small areas identified as having high levels of LIHC fuel poverty by the BEIS sub-regional statistics do not tally with local housing statistics and other sources of local knowledge (e.g. [Bristol City Council JSNA fuel poverty chapter, 2018](#), [NEA, 2019](#)).

Nevertheless, the FPRN coordination group considers there are merits in the concept of relative fuel poverty, even if the current formulation of this approach in the LIHC indicator has proved problematic. We consider Bouzarovski's conception of fuel poverty succinctly captures the relative approach well: '*a condition in which a household lacks a socially and materially necessitated level of energy services in the home*' (Buzar, 2007).

We also recognise the importance of improving the energy efficiency standards of homes in tackling fuel poverty. However, there is a considerable body of research that suggests the 'lived experience' of fuel poverty is complex and not confined to poor energy efficiency alone (e.g. [Middlemiss & Gillard, 2015](#); [Mould & Baker, 2017](#)). This research focuses on exposure to fuel poverty, sensitivity to its impacts, households' adaptive capacities for coping with it and the interaction between fuel poverty and social relations inside and outside the home ([Marchand,](#)

2015). We also note that the proportion of non-heating fuel costs to heating costs within household energy bills continues to rise. Social norms and expectations are particularly important for understanding these non-heating fuel costs, e.g. access to appliances and communication technology, access to digital services and participation in social and cultural life.

In conclusion, the FPRN coordination group considers the LILEE indicator represents an improvement upon the LIHC indicator with respect to tracking the impact of the government's energy efficiency policies on fuel poor households. However, we do not consider fuel poverty will be 'solved' by improving all fuel poor homes to Band C. It requires a much broader policy response across a wide range of government departments, a conceptualisation that encompasses the notion of social relations within fuel poverty and ideally a supplementary indicator that measures fuel poverty according to a socially determined level of energy services considered essential within today's society.

## 2. Comments on LILEE methodology

### a. Energy requirements

The FPRN coordination group notes that the independent review for a new definition of fuel poverty in Scotland carried out a detailed review of indoor temperature standards, thermal comfort and heating regimes ([Scottish Government, 2017](#)). It refers to the World Health Organisation's 18 - 24°C 'gold standard' temperature range as important for minimising adverse health effects. It also comments that for the vast majority of UK households, these levels of warmth have been aspirational rather than normative. It suggests 18 - 23°C (for vulnerable) and 18 - 21°C for non-vulnerable households are 'need to achieve' temperatures rather than temperatures that approximate those in the average home (Scotland has adopted a higher temperature standard of 23°C for living rooms in vulnerable households, rather than the 21°C standard used for both vulnerable and non-vulnerable households in England).

The review concluded that a higher temperature standard of 20°C should be adopted for rooms other than living rooms for vulnerable households, while retaining the existing 23°C standard for living rooms in vulnerable households and the 18/21°C standard for non-vulnerable households. It advocates retaining the standards, plus the new standard for non-living rooms for vulnerable households, on the principle of '*first do no harm*'.

We consider this principle should also govern the approach taken to temperature standards and heating regimes with respect to the measurement of fuel poverty in England. However, we note that a number of research reports have commented that the current approach does not give sufficient recognition to the additional energy requirements of disabled households (e.g. [Snell et al, 2014](#); [Bradley et al, 2019](#)). We suggest that fuel poverty measurement is improved to reflect these needs.

### b. Equivalisation factors for fuel costs and income

The FPRN coordination group notes that a number of FPRN members support a unit cost approach to equivalising the required energy costs of a household (£/m<sup>2</sup>), e.g. [Moore et al, 2018](#). We assume that this becomes less of an issue given the proposal to include all low income households living in homes below Band C within the fuel poverty measure.

We support the current approach to equivalising income since this is in line with the measurement of income in other government income and poverty statistics.

### c. Income methodology

A number of FPRN members consider the Government should use the Minimum Income

Standards (MIS) approach for assessing the income required for maintaining satisfactory living standards ([Hirsch, 2019](#)). We note that the Scottish Government has adopted a 90% MIS After Housing Costs threshold for its assessment of low income. We also note that the DWP/ONS intend to implement the recommendations of the Social Metrics Commission with respect to improving the measurement of income poverty ([Social Metrics Commission, 2019](#)). We therefore consider there is a strong case for improving the measurement of income poverty within the fuel poverty methodology.

#### **d. Fuel prices methodology**

We consider there is a strong case for using the actual tariffs paid by low income households, rather than the modelled regional tariffs used in the current fuel poverty methodology ([Moore et al, 2018](#)).

### **3. Current target and milestones**

We support the current target and interim milestones in so far as the Government's energy efficiency policies for tackling fuel poverty go. However, we would like the Government to adopt a supplementary indicator of fuel poverty that incorporates other aspects of fuel poverty additional to poor energy efficiency, as proposed above.

We also consider there is considerable potential for technical innovation and improvements in cost effectiveness of energy efficiency retrofit measures such that passive house and zero carbon standards become much more feasible for many existing property types. We therefore consider the Government should review the Band C target with a view to raising it no later than 2025. This would also help the UK Government meet the net zero carbon target for 2050.

We also note that improving homes to a C standard is much more onerous than achieving a D standard. This suggests that there will need to be a considerable ramping up of activity from current levels between 2025 and 2030, unless policy encourages more homes to be improved to the C standard well before 2025 ([CCC, 2019](#)).

### **4. 'Worst first' principle**

We support the 'worst first' principle, although consider this can run counter to the 'cost effectiveness' principle that the Government also wants to maintain. For example, some of the deepest, most severe fuel poverty occurs among low income households living in off-gas, solid wall homes in remote rural areas ([DEFRA, 2019](#)). These types of property are expensive to improve, with further costs arising from travel time for contractors.

We are concerned that the design of the current ECO programme does not follow the 'worst first' principle. UKERC/York University/UEA research found that

- a.** Energy advisors are often limited to recommending centrally defined, inflexible measures, rather than measures best suited to the property and household living there
- b.** Disabled people and low income families often live in the poorest quality housing and have additional needs that require support throughout the retrofit process which adds expense. These households are therefore often side-lined.
- c.** Suppliers rely heavily on referral partners, 'lead generators' or broad marketing strategies which rely on households to contact them or their agents. Many disabled and low income families miss out as a result

- d. There is no single, strong and consistent approach to engaging households in England, trusted intermediaries find it difficult to refer households into schemes and as a result it is harder to support vulnerable households. ([Snell et al, 2018](#))

Similarly, recent research on providing energy advice to 'hard to reach' households found that energy efficiency programmes and suppliers' strategies for addressing vulnerability appeared to have little impact on such households (Ambrose et al, publication forthcoming). Households reported a wide range of problems including cold homes, energy debt, under-heating and struggling to understand bills, tariffs and meter readings as well as a lack of confidence or capacity to seek help.

Energy affordability problems often reflected wider difficulties associated with a low income. Furthermore, many energy problems were linked to their landlord (whether private or social). Primarily being a tenant caused problems when it came to trying to resolve energy problems but in some cases, private landlords were identified by respondents as causing or frustrating their energy problems.

The findings reinforce the importance of fuel poverty policy addressing wider concerns than those relating to poor energy efficiency standards.

## 5. Policy plan for improving energy efficiency for households in fuel poverty (Question 9)

The FPRN coordination group and many of its members support the Committee on Fuel Poverty's proposal to introduce a publicly funded energy efficiency programme targeted at low income households to complement ECO (CFP, 2018). The UKERC/York/UEA research found that ECO works best when delivered alongside a publicly funded programme that has explicit inclusivity objectives and targets, as is currently the case in Scotland and Wales ([Snell et al, 2018](#)).

The FPRN coordination group and many of its members were therefore disappointed that the Government's recent Spending Review did not include resources for the £1bn fuel poverty challenge fund that the CFP recommended as essential for meeting the Government's 2020 milestone and further £1.8m required for meeting the 2025 milestone ([Treasury, 2019](#); [CFP, 2018](#)).

The CFP recommendation is based on the shortfall in funds identified once ECO and the MEES regulations are taken into account and the Clean Growth Strategy proposals are actually implemented. It is also based on the current LIHC measure of fuel poverty, that is 2.55m households in fuel poverty in 2016. Given that under the new measure there will be 3.6m households in fuel poverty, the case for extra resources to meet the government's target and milestones becomes even more urgent.

The FPRN coordination group and many of its members support the Minimum Energy Efficiency Standard regulations for the private rented sector but consider the minimum standards need to be improved beyond EPC E, as proposed (but not legislated for) in the Government's Clean Growth Strategy ([BEIS, 2018](#)). Research shows that there is a considerable power imbalance between private tenants and their landlords which can only be rectified by improving tenants' rights, particularly those relating to security of tenure, and more effective enforcement of the regulations, adequately resourced, by local authorities ([Ambrose et al, 2016](#), [Scullion et al 2018](#)). We support the Committee on Fuel Poverty's proposal to establish a national registration scheme for private landlords, as already exists

in Wales and Scotland (CFP, 2018).

As advocated above, we consider fuel poverty policy should encompass a much wider range of policies than those concerned with energy efficiency. We acknowledge that Government's policies such as the Warm Home Discount (WHD), Cold Weather Payment, energy price caps and the various small scale health initiatives all contribute towards tackling fuel poverty. (However, we consider improvements to these programmes are required, for example, combining the core and broader groups for WHD so that all eligible households receive the discount automatically, full implementation of the NICE NG6 guideline across the country, establishing a major home improvement programme for people with severe cold related health conditions such as Ireland's Warmth and Wellbeing Scheme ([Citizens Advice, 2018](#); [SEAI, 2019](#)).

But in the longer term, we would like to see a much wider range of coordinated and adequately resourced policy responses to fuel poverty that effectively addresses its multifaceted and complex nature.

## Section B

### PRIORITIES FOR FUTURE FUEL POVERTY RESEARCH

As part of the Eaga Charitable Trust Archive and Legacy project, the University of Salford conducted a three-stage Delphi study to look to the future of fuel poverty research. The Delphi methodology is characterised by an iterative approach in which the analysis of each stage feeds into the research design of the next.

The first stage sought responses from a wide range of people active in the field of fuel poverty, receiving 50 responses through an online questionnaire. This stage featured open questions, seeking thoughts on the evidence gaps in the field, pertinent conceptual discussions, and priorities for research. After an initial analysis, in the second stage the researchers returned to the first stage respondents and also opened out the survey through social media. This stage featured closed questions in which respondents were asked to prioritise statements that summarised answers provided in the first stage. It received a total of 170 responses across academia, housing, health, non-governmental organisations (NGOs) and energy industry. A third stage comprised interviews with a subset of respondents to further explore themes arising in the survey.

The results reveal a range of ideas and concerns about the future of the field. We provide a snapshot of these here, in the form of a set of discussion points for the future of fuel poverty research and drawing on points made in the survey and interviews. This is an interim summary at the time of writing, and the study will be complete in October 2019. A full report will be able on the [Fuel Poverty Research Library](#).

#### **Fuel poverty as an international issue**

Whilst the term fuel poverty was created with reference to conditions primarily in the United Kingdom (UK) and Ireland, the last decade has seen an explosion of interest in how this concept might, and does, play out in other settings. Studies have drawn attention to the varying context of energy consumption and the ways in which the challenge of maintaining a comfortable and healthy home differs across cultures, climates, housing stocks, and available technologies. The capacity and willingness of governments to tackle the issue is in turn shaped by availability of housing and health related data, political recognition and the structure of the energy industry and its relationship with the state. In the global south, inequalities can occur at the level of access to energy and water in the context of a 'persistent deficiency of energy infrastructure provision across large parts of Africa, Asia and South America' ([Bouzarovski and Petrova 2015](#)).

#### **'Fuel poverty' as term and concept**

Closely related to the broadening of fuel poverty scholarship, in particular the internationalisation and inclusion of non-heating uses of energy, there are a plethora of alternative and complementary labels alongside some discussion about what the most appropriate overall terminology might be. Interviewees referred to terms with more resonance in the national contexts in which they work, whether energy poverty, vulnerability, energy justice, energy solidarity or energy burden. Notwithstanding the currency and strength of having an existing recognised term, these newer concepts (to the UK context particularly) begin to reflect the diversity of experiences of inequalities relating to energy. They resonate with concerns that fuel poverty places an emphasis on heating requirements, rather than cooling and other energy requirements such as cooking, lighting and communication. It was recognised that choice of language varies by audience: it would not necessarily be appropriate to ask someone on their doorstep if they are fuel poor, for example.

It is accepted that the term itself, while providing a common understanding or focus in research and policy, is not well-suited or appropriate for use in more everyday interactions, such as engagement with householders. A number of interviewees emphasised this point, highlighting how

many people will not identify themselves as living in (fuel) poverty, whether due to understandable links with stigma or shame, or simply because of unfamiliarity with the label.

### **Identifying the fuel poor**

Responses highlighted the importance of being able to establish who is in or at risk of fuel poverty in order to better understand the extent and severity of the issue and to better target resources. Concerns were raised about the usefulness of the current Low Income High Cost measure and the potential for it to *'mask the extent of poverty'*. As the current government consultation on a 'Low Income Low Energy Efficiency' measure evidences, this is a debate that continues.

### **Understanding fuel poverty in the context of poverty and structural inequalities**

A challenge for research is recognising the distinctive nature of fuel poverty whilst also understanding it in the context of poverty in general. It is arguably the role of buildings and energy infrastructure that distinguishes energy inequalities from broader social differences and other forms of poverty. Research and policy that focuses solely on these factors, however, *'carries the risk of allowing fuel poverty to be characterised apart from structural factors driving poverty in general and thereby allowing policy makers to forego addressing poverty in favour of energy/fuel specific measures'*.

### **Longer term, enduring impact of fuel poverty on physical and mental health and wellbeing**

The health and wellbeing impacts of fuel poverty stem not only from the direct effects of conditions that are too cold, too warm or damp but also from less tangible aspects of fuel poverty such as the stress of managing household budgets, social isolation and poor diet. Whilst interviewees agreed that a substantial evidence base has been built, they pointed to certain gaps within it. One gap relates to the longer-term impacts of fuel poverty alleviation schemes – do health conditions improve over time; do financial savings endure? There are challenges in sourcing data from health professionals and relying on self-reported indicators, as well as limitations in inferring results from relatively short studies. There remains a need to look more at mental health, both in terms of the way fuel poverty affects it and the extent to which it can deepen fuel poverty. Access to health data and stronger engagement with the health service, it is argued, could help to make the case for, and target, effective fuel poverty measures and enable organisations to *'effectively map their fuel poverty services on a local level against a live and agile map of fuel poverty levels'*.

### **Beyond heating and cooling**

An appreciation of the role of non-heating technologies and services in energy inequalities stems in part from the internationalisation of this field, with cooling-dominated climates becoming an important focus alongside countries with a greater proportion of electric heating. It can also be attributed to a growing recognition of the importance of energy in all aspects of life, whether for lighting, study, washing or cooking: *'not having electricity to light your home doesn't get much focus because we assume that's not a problem'*. Linking again to inequalities on an international level, this relates to energy shortages in the global south as well as challenges closer to home: some health conditions, for example, requiring more frequent washing loads. With access to the Internet and smartphones to benefit from some efficiencies of some of the latest smart technologies, the inequalities can compound each other.

### **Fuel poverty and climate change**

Whilst fuel poverty and climate mitigation are thought of together, *'a low carbon heat source will not in itself solve fuel poverty'*. Although both correspond to the energy system, there are subtle differences in approach: not all fuel poverty projects will result in reduced energy consumption; and many deep retrofits and renewable installations will require capital that is beyond the reach of the



fuel poor. Nevertheless, both agendas remain important. One interviewee expressed concern that *'the reduction of fuel poverty may be lost in the rush to decarbonise'*. The effort to decarbonise heat may present particular challenges to the fuel poor. It will involve, for example, new technologies that require capital outlay or landlord intervention and new learning curves to operate them in the best way. The impacts of climate change are also an important consideration, bringing with them a potential for new vulnerabilities as cooling-dominated climates experience more frequent and intense heatwaves and northern Europe finds that demand for cooling rises.

### **Occupant experiences of and role in fuel poverty**

There has been increasing recognition of the importance of understanding fuel poverty from the viewpoint of householders alongside and complementary to work on buildings and technology. Investigating lived experience reveals the diversity of forms of fuel poverty as well as the heterogeneity of the fuel poor. It also highlights the practices the fuel poor deploy to cope with and adapt to thermal discomfort and mitigate their circumstances. Recent discourse has suggested that behaviour could therefore be understood as a driver of fuel poverty. This is useful in drawing attention to the potential influence of occupant practices and recognising that *some* occupants have agency to make modifications to their homes. Concerns have however been raised about the risk of creating a *'faulty consumers narrative'* that *'shift[s] the blame and responsibility from governments and international energy companies to the most vulnerable in society'*. There is also a view that increasing the adoption of smart technology will *'take behaviour change out of people's hands and automate it for them'*, leading to challenges for research in understanding the extent to which technology constrains or facilitates behaviour.

### **Diversity of fuel poverty in diverse locations, including remote and rural**

To some extent this point relates to the diversity of experiences of fuel poverty. It points particularly at the differences within countries and the importance of recognising particular challenges in rural and remote areas. In these areas extremes of fuel poverty can be observed, reflecting both poor quality homes, expensive energy and inefficient heating – *'we'd be looking at 40 per cent of their income that would need to be spent on [heating], so it was almost like a new category of fuel poverty they were finding'*. Even when remote areas can take advantage of their capacity for renewables generation, energy costs can still be subject to a premium – *'we're basically still being penalised for being so-called remote when we're generating the electricity that we're using'*. It also reflects the costs of approaches such as retrofit – *'the scaffolding could be into the thousands, it could be £2,500 [here] compared to £600 in the mainland'* – and the more dispersed housing that mitigates against the economies of scale afforded by a street-by-street approach.

### **Transition of the energy system – who benefits and who is left behind?**

Whilst there is *'massive uncertainty around the future of energy generation in the [UK]'*, there are some identifiable trends as well as concerns about the impact these will have on fuel poverty. In the UK, we expect to see a transition away from gas and towards electric systems, including heat pumps. Internationally we are seeing an increasing role for smart energy technologies, including smart meters and smart home controls. Renewables are becoming more prominent, in some countries and climates more than others, and battery technologies are enabling homes to become self-sufficient. These trends bring with them opportunities for making energy systems more affordable and controllable but *'research is needed now on how to ensure that no one is left behind as the industry transitions to a low carbon future'*. In Australia, for example, there is great potential for solar energy and battery storage but capital expenditure is an access barrier. Data from smart technologies also bring opportunities for research, albeit with questions around research ethics and the risk of privileging monitoring and bill data over lived experience.