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DYNAMICS OF ENERGY, MOBILITY AND DEMAND

WHAT ENERGY USES MATTER?
FUEL POVERTY BEYOND HEATING

- Multiple energy uses are necessary for well-being and a minimally-decent quality of life.
- UK fuel poverty policy focuses almost exclusively on addressing heating needs.
- A clearer justification of which end uses of energy should be within the scope of fuel poverty policy is needed.

Introduction

Fuel poverty policy seeks to make the use of energy affordable, particularly for those who are disadvantaged and vulnerable. But what uses of energy matter to the extent that they should be supported? In the UK energy for heating is readily seen as essential because of the need for people to keep warm and healthy in their homes. Fuel poverty policy does recognise the need for household expenditure on other forms of energy use but the rationale for seeing these as necessities that should be affordable for all has rarely been articulated. In our work we have examined the grounds on which a range of energy uses can be considered essential for enabling a minimally-decent quality of life. This research has implications for the scope of current fuel poverty policy.

Questions

- How might literature on needs, well-being and social justice provide a foundation for evaluating how energy use contributes to a minimally-decent quality of life?
- What range of energy-consuming goods and services figure in public assessments of what is necessary for a decent living standard in the UK?
- To what extent does current fuel poverty policy engage with a range of current household uses of energy? Is there case for a stronger focus on non-heating uses?

Findings

There are different traditions of thinking about the relationship between needs and well-being with particular insight in the 'capabilities approach', which contends that:

- Well-being is fundamentally about what people are able to do or to be – their 'capabilities' – not simply their income or other assets.

- A minimally-decent quality of life involves multiple capabilities, because well-being is multidimensional – it can include, for example, the capability to sustain good physical health, to interact socially and to have meaningful work opportunities.

Applying this approach, we can reason that:

- Energy use is significant to well-being not for its own sake, but because of how it contributes to the 'capabilities' that people have access to. For example, artificial light enables people to study and learn into the evening, to move around safely and to participate in social activities.
- Since a minimally-decent quality of life involves being able to achieve multiple capabilities, it follows that energy use will matter in many different ways to people's capabilities.

This reasoning does not resolve which forms and levels of energy service matter to the extent that they are essential to achieving basic capabilities. There are different perspectives on this, which are likely to change over time as understandings of what is an acceptable standard of living evolve and the role of energy use in supporting everyday life changes.

Looking at how members of the public in the UK see acceptable living standards provides useful insights. Studies on the specification of 'Minimum Income Standards' (MIS), undertaken for the Joseph Rowntree Foundation by researchers at Loughborough University[i], have been carried out every two years since 2008. They use focus groups with members of the public to draw up a list of items that are considered necessary for a decent standard of living, making distinctions between different types of households. In our work we examined where energy use is implicit in these lists, and found that heating, lighting and hot water, alongside a wide range of energy-using devices repeatedly featured as essential items. Table 1 shows the directly energy using items included in the 2014 MIS lists, distinguishing between

those seen as necessities for all households, and for only certain types of households.

In the group discussions participants applied various rationales for seeing these items as 'necessities', including that:

- They are required to maintain good health – for example, refrigeration and cooking to be able to eat well.
- They are so widespread and customary that they are required in order to be able to 'fit in' and socially interact with others – for example, mobile phone and TVs.
- There are few reasonable alternatives – for example, having a PC and internet access at home is now seen as essential for school homework and accessing the job market.

This empirical evidence supports the view that multiple energy uses matter for well-being; and also provide insights into the specific grounds on which key aspects of well-being and access to energy services are interrelated.

Table 1
Energy using items included in the Minimum Income Standards list for 2014

ENERGY USE	HEATING	LIGHTING	ENTERTAINMENT COMMUNICATION	COOKING	CLEANLINESS AND PERSONAL CARE	OTHER
Every household	Central heating (for heat and hot water)	Electric main lights Side lights Nightlights	Mobile telephones TV and Freeview CD and DVD players Computer and Broadband internet	Fridge freezer Cooker Kettle Toaster	Vacuum Iron Washing machine	
Certain households only	Upright fan heater (pensioners; single working age adults) Electric fan (pensioners)		Radio alarm clock Printer (families with school-aged kids) Paper shredder (pensioners) Laptop (families with >1 school-aged kid)	Steamer (single pensioner) Hand held blender (couple no kids) Microwave (all except for couple no kids) Slow-cooker (pensioner couple)	Tumble dryer (family with over three kids) Hair straighteners (working age and teenage females) Hairdryer (adult and teenage females)	Lawnmower and strimmer for garden (families with kids) Car (families with kids)

Significance

The official definition of fuel poverty includes all the 'required energy' of households, broken down into energy for heating, hot water, cooking, lighting and 'appliances'. Yet there is a striking imbalance between this recognition of the need for multiple energy uses, and the overwhelming focus on heating by policy-makers as well as by others engaged in fuel poverty debates. This is further reflected in how:

- Fuel poverty modelling and the generation of fuel poverty statistics goes into more detail and is more rigorous in calculating the 'required energy consumption' for heating compared to other energy uses (see DEMAND Research Insight 5 for a more detailed discussion).
- The major 2012 Hills Review[ii] on fuel poverty dedicated two pages of analysis to the 'Health and social effects of living at low temperatures', but mentioned the non-heating uses in the fuel poverty definition in only a brief footnote.
- Policy measures currently focus almost entirely on heating and warmth. Scheme names such as the 'Warm Home Discount', 'Cold Weather Payment' and 'Affordable Warmth Obligation' make this very apparent.

Implications

Space heating is undoubtedly, the most important single energy use for sustaining well-being, given the well-documented implications for physical and mental health of living in a cold home. It is also where the greatest energy efficiency gains can be made.

However, our work shows that there are clear theoretical and empirical grounds for seeing other energy uses as important for well-being. These therefore need to be given more attention by the various organisations involved in developing and scrutinising fuel poverty policy through, for example:

- Developing a more precisely reasoned specification of which end uses of energy beyond heating should be within the scope of fuel poverty policy and how it is defined.
- Assessing how problems of and household responses to energy debt relate to expenditure on energy consumption across the full spectrum of end uses.
- Investigating the extent to which older, less energy efficient technologies – such as fridges, cookers and TVs – are now concentrated in fuel-poor households.
- Recognising that planned time-of-use pricing of electricity could increase bills for fuel poor households, with this relating mainly to their non-heating energy use.

[i] See Davis, A. et al. (2014) 'A minimum income standard for the UK in 2014'. York: Joseph Rowntree Foundation

[ii] Hills, J. (2012) Getting the Measure of Fuel Poverty. CASE, London School of Economics.

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Further reading: Simcock, N. and Walker, G. (2015) Fuel Poverty Policy and Non-Heating Energy Uses. Working Paper 16. Lancaster: DEMAND CENTRE. Available at: www.demand.ac.uk/research-themes/theme-4-normality-need-and-entitlement/4-1-energy-and-justice/
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