



Poverty and social exclusion: Review of fuel poverty

Background

The Wales Centre for Public Policy (WCPP) was commissioned by the Welsh Government to conduct a review of international poverty and social exclusion strategies, programmes and interventions. As part of this work, the Centre for Analysis of Social Exclusion (CASE) at the LSE was commissioned to conduct a review of the international evidence on promising policies and programmes designed to reduce poverty and social exclusion across twelve key policy areas. This briefing summarises the findings on fuel poverty.

Introduction

Fuel poverty is a specific dimension of poverty relating to the ability of lower income households to meet basic energy needs.

Households in fuel poverty are faced with difficult decisions about how to cover energy costs or how to manage on insufficient levels of energy consumption, with some having to decide between 'eating and heating'. There are known health risks associated with fuel poverty and negative impacts on well-being and social inclusion.

Home energy efficiency improvements are important for tackling long-term risks of fuel poverty.

Evidence of policy effectiveness

There are three main drivers of fuel poverty: poor energy efficiency of homes; high energy prices; and low incomes. The behaviour of households is also important. The review examines the evidence of policies and programmes designed to address these drivers.

The lack of an agreed definition of fuel poverty creates challenges in reviewing the international evidence and different definitions shape policy responses.

Home energy efficiency improvements

Reducing energy consumption and costs through improved energy efficiency is often the most cost-effective way of reducing the risk of fuel poverty. Energy efficiency measures include loft, cavity wall and solid wall insulation, heating system upgrade, draught proofing, and energy efficient behaviour such as powering off electrical equipment when not in use.

The costs and benefits of different measures vary across types of dwellings, household types, geographies and socio-economic groups. Wales has a high proportion of 'hard-to-treat' dwellings.

It should be noted that the financing of energy efficiency improvements can impact energy costs, which can lead to higher risks of fuel poverty. In addition, improving energy efficiency in fuel poor households may not lead to large reductions in energy usage as households may choose to use all, or part of, the savings on keeping their homes warmer (referred to as the

'rebound effect'). While greater warmth is a positive outcome, unless improvements are sufficient to cut energy bills after any increase in usage, households can remain in fuel poverty.

One policy approach to improving energy efficiency is to set minimum standards in domestic properties through legislation. This is most straightforward for new builds but is likely to increase the cost of these homes. For existing properties, legislation can require homeowners to improve energy efficiency at the point of sale, passing the cost on to purchasers.

One challenge is that energy efficiency improvements in existing homes (or 'retrofit') require a (sometimes large) upfront cost, while the savings accrue over long periods of time. This is a particular challenge for rented homes because those making the investment generally do not benefit from any energy cost savings. This is called the 'split incentive' problem.

For interventions to be effective at reducing fuel poverty, three important steps have been identified: policy targeting, identification of households and implementation of measures. However, each of these steps are costly and can face feasibility problems.

Energy audits can help elicit positive behavioural changes in relation to energy use.

Energy prices

Price-based policies are designed to reduce the cost of the energy used and thereby reduce the risk of fuel poverty. Policies include supplier rebates and discounts on energy bills, regulation of energy prices and payment methods.

Cross-country evidence from Europe finds that higher energy prices have statistically significant negative effects on subjective well-being. Effects are strongest for lowest income households.

In countries with private energy providers, a range of tariffs are generally offered to

consumers. More could be done to help households at risk of fuel poverty switch providers and find the best energy price deals, particularly those who are digitally excluded.

Payment type also has an impact, with the best deals being available for those able to pay by Direct Debit (which is more difficult for lower income households and the financially excluded) and poor deals for households paying by pre-payment or pay-as-you-go meters.

Wales has a high share of households in rural areas who are off the gas grid (19% compared to 15% in Scotland and 14% in England) and reliant on heating their homes using oil, LPG, solid fuel or electricity. These households are more likely to experience fuel poverty due to higher prices compared to gas; fewer opportunities to switch suppliers (which are not regulated by Ofgem); and needing to make upfront payments for a large quantity of heating oil.

An option which can help off-grid households is domestic-scale renewable energy generation. Households effectively become producers and consumers of energy, with excess sold back to energy providers at an agreed tariff (which can be set by governments to increase incentives). Options can include solar panel 'rent-a-roof' schemes.

Financial assistance with energy costs

Clearly, inadequate levels of income are a key driver of fuel poverty which need to be addressed through a range of policies. In this section we focus on financial assistance through social security payments, designed to help vulnerable households meet the cost of energy bills, and schemes run by energy providers to reduce energy bills for such households.

Income-based measures are used in the UK and elsewhere to assist vulnerable households with the cost of energy, particularly during periods of cold weather. In the UK, these include the Cold Weather Payment and the Winter Fuel Payment. Although in practice these payments simply

increase general household income, labelling these benefits affect how households use them – on average, households spend 47% of the Winter Fuel Payment on fuel compared to 3% if the payment was treated as cash.

Common forms of financial assistance are energy bill concessions, emergency grants, special circumstance concessions and hardship programmes. National energy regulators are commonly required by governments to implement customer hardship policies for people who are having difficulties paying energy bills. Such hardship programmes include alternative options for paying bills, reviews of energy plans, and advice on government assistance.

Other schemes operate on a more local level. Queensland Australia has a small annual flat-rate energy grant available for older age groups. Recent analysis shows that a grant based on a percentage of energy bills rather than a flat rate, and targeting changes (e.g. widening eligibility to low-income households in the working age population), would be more effective at reducing the extent and depth of fuel poverty.

Behaviour

An important aspect of policy and the effectiveness of fuel poverty interventions is the behaviour of households. Fuel poor households adopt a series of coping strategies for how they use energy (particularly in colder weather), how they live with inadequate heating and how they cut back on other areas of expenditure in order to pay fuel bills.

Household behaviour and response to energy efficiency interventions play a key role in determining the cost-effectiveness of measures and their capacity to reduce fuel poverty. Such behaviours are likely to be more important for certain types of investment and recipients. For example, loft insulation and double glazing do not require any understanding of how they work, whereas new heating systems require greater knowledge to increase effectiveness.

Tenants may also need more assistance with new energy efficiency measures than owner

occupiers due to the more proactive role played by owner occupiers in deciding on a measure and understanding how it works. Large scale retrofit programmes in the social housing sector are an example of where engagement with tenants at every stage is important for the success of these interventions.

Some interventions, for example, smart meter installation, specifically target behaviour to improve energy efficiency. Ofgem's Consumer Survey 2019 found disappointing levels of behaviour change as a result of smart meter installation in Britain, and individuals getting smart meters more recently were even less likely to report behaviour change.

Evidence suggests that while smart meters can benefit vulnerable and low-income households, in most cases additional support and advice is required. However, effective operation of smart meters alone is not enough to solve the problem of fuel poverty. In addition, they may promote harmful rationing of energy consumption.

Other interventions can combine energy audits with advice and improvements. In Wales, under the Warm Homes Nest Scheme, free advice and support is offered to help people improve their energy efficiency. A package of energy efficiency measures can also be offered to low-income households and those struggling to pay energy bills.

Prepayment meters require payment upfront, before energy is consumed. In addition to covering the standing charge and per unit charge, meters can be set up to pay off arrears on energy debts with providers. However, they can offer worse deals and they can lead to extreme behaviour of self-rationing and self-disconnection.

Self-rationing and self-disconnection also occur among households reliant on oil, LPG or solid fuel to heat their homes. Interrupted supply of heating oil can occur due to the orders needing to be made well in advance. Where deliveries need to be paid in advance, fuel poor households may self-ration or self-disconnect until they can afford to pay for a new delivery.

Suppliers have a key role to play in limiting self-disconnection and some third-sector organisations have stepped in. For example, in Britain, The Fuel Bank Foundation, which was set up to support homes in fuel crisis and unable to top up their prepayment meters, operates through foodbanks and advice agencies, and can provide vouchers to households in crisis to avoid self-disconnection.

Promising actions

The review concludes with promising actions to consider in the Welsh context as emerging from the analysis of the international literature:

1. Home energy efficiency improvements, particularly in the existing rental housing stock where fuel poverty rates are highest, are important for tackling long-term risks of fuel poverty. Options are available to overcome the split incentive problem (e.g. through grants and pay-as-you-save financing models).

- 2. Energy efficiency** improvements funded through general taxation are less likely to lead to higher energy costs which negatively impact low-income households. However, pay-as-you-save financing schemes, such as those provided by Energy Service Companies (ESCOs), offer a promising approach which can bring in important financing alongside delivering energy saving improvements (including retrofit).
- 3. Energy audits** can help elicit positive behavioural changes in relation to energy use. Helping households use energy and energy savings devices efficiently can help to reduce energy bills.
- 4.** One of the key drivers of fuel poverty is low income and any strategy to reduce fuel poverty needs to tackle this driver. Targeted **financial assistance** can take the form of 'labelled' social security payments or help with energy bills. More evaluation evidence is required to assess which is the most effective at reducing fuel poverty.

Find out more

For the full report see Bucelli, I., and McKnight, A. (2022). *Poverty and social exclusion: review of international evidence on fuel poverty*. Cardiff: WCPP.

About the Wales Centre for Public Policy

Here at the Centre, we collaborate with leading policy experts to provide ministers, the civil service and Welsh public services with high quality evidence and independent advice that helps them to improve policy decisions and outcomes.

Funded by the Economic and Social Research Council and Welsh Government, the Centre is

based at Cardiff University and a member of the UK's What Works Network.

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