

## **Fuel-poverty criteria: Time for a change?**

**Einir Young, SBBS, Director of Sustainability, Bangor University**

### **Introduction**

1. This thought piece has emerged in response to the Welsh Government's consultation on Fuel Poverty, which closes on 13<sup>th</sup> June. In it we argue the case for reviewing the criteria used to assess whether a household can be described as fuel poor. In our view the current criteria dilute the Assembly's policy intentions both for sustainable energy use and for addressing severe poverty. The case for change in the criteria used is simply predicated on the largely arbitrary temperatures required for a satisfactory heating regime and the conflict between them and the need for energy-minimisation. It could be argued that current policy undermines the Welsh heritage of a race capable of living in harmony with a harsh climate, as well as adding negative connotations to a group of people whose 'make-do attitude' could be central to the success of future policies intended to foster resilience.
2. Households across Wales are diverse in many ways: the architecture of houses, fuel types used (e.g. significant reliance on oil and other 'off-grid' fuels), the occupancy rates, demographics and local micro-climates. A large number of the Welsh population (up to 1/3rd) are, according to current criteria, already 'fuel-poor'. Due to the volatility of energy prices, employment markets, the weather and so on, many hover on the edge of fuel poverty, falling in and out according to conditions: 'fuel poverty' can suddenly occur, for instance, due to unemployment, bereavement, retirement, illness or divorce. Similarly, finding a job, obtaining good healthcare, moving to a small (more efficient) home, or even finding a life-partner, can lead to the same household moving out of 'fuel poverty'. A relevant and meaningful policy, should, therefore, encompass a far wider breadth of considerations than simply the current criteria – which qualifies the 'fuel poor' group for 'building envelope' assistance.
3. Fuel poverty is currently assessed at policy level using very simple criteria: the income level of households and a largely arbitrary 'ideal' indoor heating temperature. These criteria fail to differentiate between households in need of increased heating energy and those where patterns of occupancy and behaviour allow significant flexibility in terms of coping with colder weather. This is important because 'fuel-poor' households often employ energy-reduction measures that have historically been taken for granted but are now often overlooked when focussing on building envelope improvements. In fact, they are the group most likely to be following other Welsh policies of reducing heating temperatures to correspondingly reduce fuel use and emissions (e.g. a 1°C reduction to save 10% on fuel and emissions).
4. In the worst case, current fuel poverty criteria negatively labels as 'fuel-poor' households actively and proudly seeking to minimise energy use, albeit likely on limited incomes, in an intentional effort to live the one-planet life so central to Welsh policy. For such people, there can be more ways than money and warmer indoor temperatures to cope with colder weather, and their methods of coping, and ecological ideals, can be as relevant to policy as current fuel poverty criteria. It might be a good idea to encourage and reward those who wish to lead 'The Good Life', accepting, as

they do, that it may cause some relative hardship, which they consider rewarded through their choice of lifestyle.

5. On the other hand, it must also be acknowledged that there are many vulnerable groups for whom warmer indoor temperatures are more of an issue. These include households with children under 16, adults over 65 and any household member with health concerns or conditions classified as 'disabilities'. But it must be further acknowledged, especially for those households with significant problems coping with small incomes, that being classified as fuel-poor, and receiving assistance in improving the thermal properties of their building envelope, does not necessarily guarantee a satisfactory heating regime.
6. These considerations lead us to conclude that while fuel-poverty policy is of critical importance, it is out of step with policy needs for poverty, energy-efficiency and fuel-minimisation. We suggest that research is required to define a model for sustainable energy use that can be used to provide evidence-based, long-term resilience against both severe poverty and fuel poverty in Wales.

### **Arguments for change**

7. The methodology for assessing and addressing fuel poverty is based on the assumption that a 'satisfactory heating regime' must ensure maintenance of indoor living-room temperatures up to 21°C (or 23°C for certain vulnerable groups) over a large proportion of the day. The temperatures are as defined by the World Health Organisation (WHO) who also acknowledge that healthy adults are unlikely to suffer serious ill effects at lower temperatures (18°C commonly being considered safe mentally and physically over long terms) and that they can accept reductions in temperature due to factors such as acclimatisation and clothing adjustment. It could be argued that current policy discourages the wearing of extra warm clothing or gives the impression that this option is a 'second class' solution, rather than encouraging reduced fuel consumption.
8. Energy consumers are regularly reminded that reducing thermostat settings by just 1°C will reduce heating fuel needs by 10%. The average daily temperature of a household in the UK is around 19-20°C so the recommendation appears to be to reduce the temperature to a lower setting than that recommended by WHO. Many households not considered to be in fuel poverty don't approach temperatures of 21°C, in living rooms, during cold weather, electing to be a few degrees cooler. If the WHO-identified temperature of 21°C is the ideal norm (regardless of what you wear) why isn't everyone advised to heat their homes to this level, even if it flies in the face of the other energy-minimisation policy aspirations?
9. Higher temperatures are not necessary to prevent potential problems such as condensation, damp and mould formation (and their related air quality issues). The prevalence of such problems has been shown to be more significantly connected to patterns of heating and ventilation (e.g. fluctuations between warm and cool indoor temperatures), and the age and construction-type of the building, than merely to lower temperatures. The WHO heating regime is related to thermal comfort for those in sedate circumstances with limited clothing levels. It can easily be argued that healthy adults are perfectly happy with lower heating regimes if non-heating related coping strategies are adopted, and that, in fact, such temperatures prevail over a large proportion of the population.
10. While improvements to the building envelope will improve thermal efficiency, research indicates that households (particularly those in severe poverty) may not use those improvements to maintain a 'healthier' temperature, instead electing to use them to provide improved flexibility in household budgets (i.e. potentially not

exceeding their prior energy use even though it would not increase energy costs). Measures to address fuel poverty may therefore partially address underlying severe poverty without achieving the 'satisfactory' heating regime central to fuel poverty assessment. Understanding which households are likely to elect to take improvements as a means to raise the temperature of their living spaces, and which will utilise them as financial benefits, would allow underlying severe poverty to be targeted and so improve the efficacy of building envelope improvement initiatives.

11. In such cases, or where householders take advantage of reduced costs to increase temperatures toward a satisfactory heating regime, building envelope improvements will improve the housing stock, but will not necessarily reduce energy consumption. So, this is a short-term solution as it does not significantly increase the resilience of the fuel-poor toward future setbacks such as further increases in energy costs above inflation.
12. Households living in fuel-poverty have been shown to use a variety of coping methods, to reduce the financial burdens of their fuel needs. These include wearing extra (and warmer) clothing, using one room most of the time, using hot water bottles, exercising, hot drinks and thermal curtain linings. Undervaluing these coping mechanisms by implying that people who employ such strategies are 'poor things' and simply making improvements to the building envelope would be a retrograde step as the strategies also provide ways for increased thermal efficiency in more efficient households. We suggest that there is much to learn from 'fuel-poor' households, and aspects of their coping behaviours that maximise energy efficiency should be encouraged as a means of promoting resilience over future trends towards increases in fuel prices.
13. Welsh and European guidance expects funding to be focussed on households most in need, yet neither of the current methodologies significantly differentiates between households most in need of financial assistance and those most in need of building fabric improvements. As an example, an elderly/retired individual, requiring constant high temperatures for health reasons, living in a small efficient home might be classed as 'fuel poor'. Similarly, fuel poverty could be associated with a healthy, single unemployed person struggling to maintain a larger, older, home. The advice, assistance and support required by both are different and should reflect their individual needs and priorities.
14. It is important to acknowledge that much of the above relates to households where healthy adult, working-age, people live. Changes to criteria for vulnerable groups such as children under 16, adults over 65, the sick and infirm should not be made without great care. However, it should also be noted that for many medical conditions warm temperatures should also be accompanied by stability of temperature (e.g. some heart problems can be exacerbated by changes in temperature). Yet, many vulnerable people forego continual heating in order to cope with heating-fuel costs, and that behaviour is likely only to change in the longer term if both the building improvements they receive, and future energy prices, make it *affordable enough* for their individual circumstances.
15. It must also be noted that the income aspect of fuel poverty criteria relates to many other aspects of policy. For instance, much fuel-poverty prevails in remote rural areas of Wales, and so occurs largely due to unemployment, low income and limited mobility. Any policies that mitigate against those factors also reduce the potential for fuel poverty. Therefore, initiatives such as capitalising on high-speed broadband rollouts to encourage tele-working in remote areas (as has recently been found to be occurring) should be considered carefully as a means of elevating rural households out of being labelled fuel-poor.

## Conclusions

16. The criteria for fuel poverty are largely decoupled from the need for energy consumption minimisation and do not necessarily guarantee a satisfactory heating regime for households in severe poverty. They do not significantly differentiate between households most in need and those where occupancy and/or behaviour patterns mitigate significant heating-cost problems. They do not differentiate between people who cannot cope with heating bills that meet their personal needs, and those who actively seek to limit energy consumption (so willingly accepting lower indoor temperatures) either for economic reasons or in an attempt to strive towards a 'one-planet life'. We would argue that there is a case for adjusting the expected satisfactory heating regime to better reflect a desire for reduced energy-consumption, and in parallel better identify households in need of improved poverty assistance.
17. We acknowledged that there are challenges associated with introducing large changes to the criteria, in an evidence-based manner, and recommend further research into the consumption behaviour and temperature needs of diverse households within Wales, closely linked to research into the potential effects of reducing advised maximum temperatures on health and building fabric performance. Regardless of this, there appears to be a strong case for the Welsh Government to reduce the non-vulnerable group temperature thresholds by 1°C and in so doing champion the potential for reducing heating fuel use in Wales by up to 10%. To do otherwise would appear to introduce conflict into Welsh energy-related policy and significantly dilute the impact of energy-reduction advice.
18. Unless it can be unequivocally stated that the volatility of fuel markets will not cause significant, short or long term, energy-affordability issues in the future, loss of knowledge of the coping mechanisms of the 'fuel poor' may also prove a loss of ability to properly mitigate the impacts on cash-strapped Welsh people. Research should therefore be encouraged to provide a sustainable energy use model reflecting the unique needs of Welsh households and aid in providing policy that is as resilient as possible to the volatile impacts of fuel poverty. To that end, we should therefore seek to learn from the coping methods of fuel-poor households in order to provide advice that goes beyond simple housing stock improvements.
19. In short, to achieve a resilient future Wales there is a case to be made for the transfer of knowledge from the 'fuel-poor', to enhance the development of consistent policies that do not conflict on issues of poverty, fuel-poverty and energy-efficiency.