

## **Scottish Rural Fuel Poverty Task Force – Evidence Submission**

### **Questioning common assumptions about rural fuel poverty**

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#### **Introduction**

This submission summarises the key findings from a study of ~250 households in Renfrewshire for which actual energy spend data was accessed. The households were all on-gas and of similar build types, with this and other data allowing us to control for and normalise other variables (see Annex 1). It also incorporates findings from our previous and current projects, and is substantially expanded on in our forthcoming report for Citizens Advice Scotland<sup>1</sup>.

#### **Key findings**

We have found significant evidence that the ‘energy spend gap’ between urban and rural households is much greater than is reflected in current statistics. This is a result of commonly-used proxies and assumptions being unsuitable or invalid for identifying and measuring fuel poverty in rural areas. These include the use of the income domain of the Scottish Indices of Multiple Deprivation as a proxy measure, and the assumption that fuel spend increases with income.

This energy spend gap cannot be sufficiently accounted for by factors known to result in higher energy costs for heating, e.g. exposure and fuel type, and the difference is thought to be the result of additional factors including urban-rural differences in household behaviour, and vulnerability.

#### **Proposed solutions**

Current statistics, policies and schemes do not sufficiently account for the ‘real’ additional energy spend of rural households, and the factors influencing that additional spend are known to be more complex amongst rural households. This added complexity means both that simple measures, such as equalising the electricity transmission charge and widening the scope of measures covered by schemes to make them appropriate for all ‘hard to treat’ properties, should have disproportionate benefits in rural areas. There is also a need to ensure the actual costs and emissions savings from interventions to rural households are accurately reflected in the design of future energy efficiency and fuel poverty schemes.

However, to fully account for those benefits it will be necessary to adopt measures that more accurately reflect fuel poverty in rural areas, and enable better targeting of fuel poor households, and better allocation of resources across the urban-rural divide.

Our more recent work is providing further evidence to support the widely-made assertions that area-based schemes and using face-to-face support workers embedded with trusted organisations are particularly effective for addressing fuel poverty in rural areas.

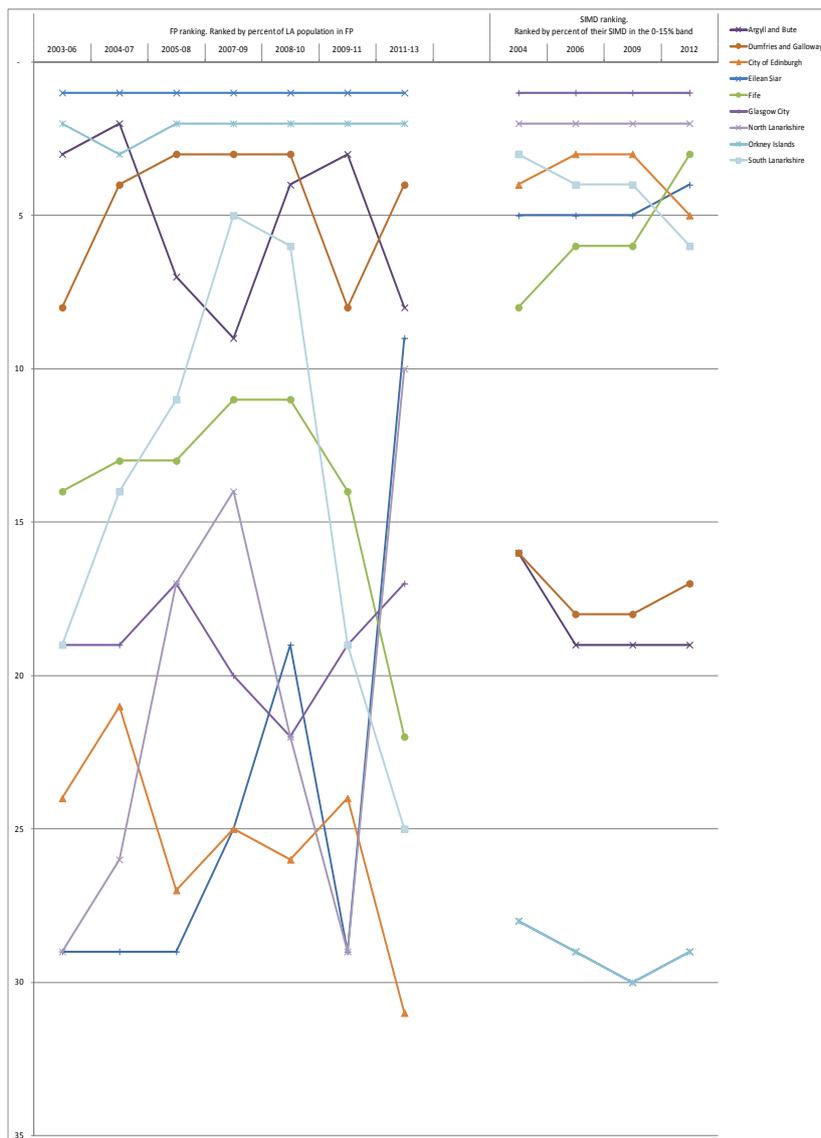
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<sup>1</sup> Maiden, T., Baker, K.J., & Faulk, A., 2016. Review of Energy Efficiency and Fuel Poverty Schemes in Scotland. CAG Consultants and Glasgow Caledonian University. Report for Citizens Advice Scotland.

## Annex 1. Questioning common assumptions about rural fuel poverty<sup>2</sup>

The income domain of the Scottish Indices of Multiple Deprivation commonly used as a proxy measure for identifying households in fuel poverty however, even our early analyses questioned the validity of this assumed relationship.

Figure 1 shows the ranking of local authorities with the highest portion of their datazones in the 0-15% band. It shows Glasgow City Council consistently has the highest portion of their data zone in the 0-15% band, i.e. their datazones are relatively homogenous in nature, and more generally that the lowest SIMD appear to be most concentrated in local authorities of an urban nature.

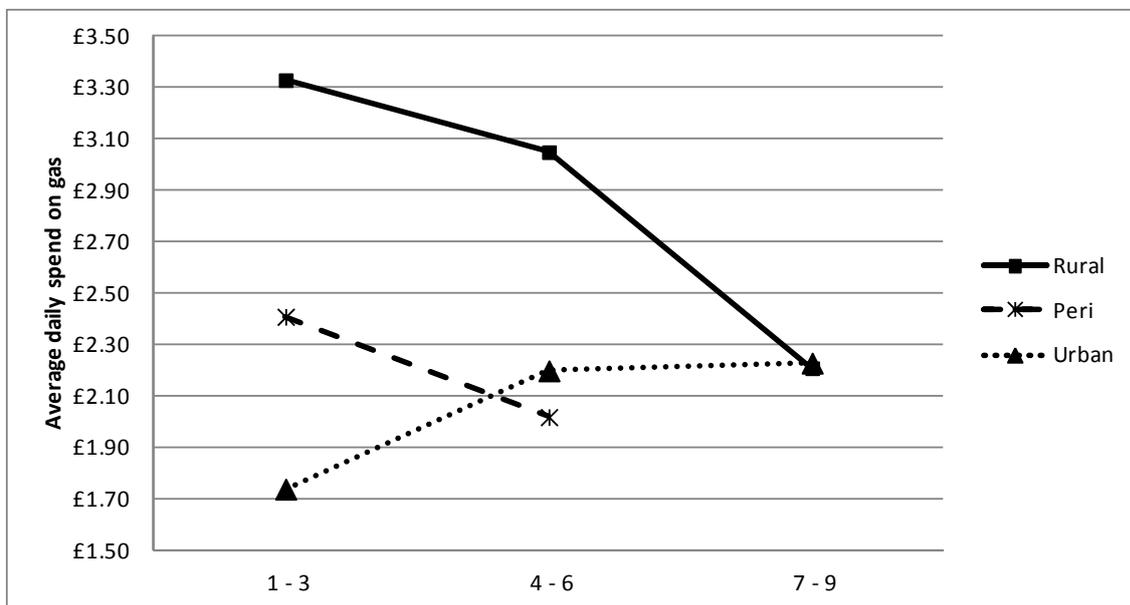


**Figure 1. Local Authorities by Fuel Poverty levels and SIMD ranking**

<sup>2</sup> All analyses and figures from:  
Mould, R., Baker, K.J., & Emmanuel, R., 2014. Behind the Definition of Fuel Poverty: Understanding differences between the Fuel Spend of Rural and Urban Homes. *Queens Political Review*, Vol. II, 2014, Issue 2, pp. 7-24.  
Mould, R., 2016. Fuel Poverty Mitigation and District Heating Systems. Forthcoming PhD thesis, Glasgow Caledonian University.

However, in contrast Comhairle nan Eilean Siar consistently has the highest portion of their population in fuel poverty, and the highest levels of fuel poverty appear to be most concentrated in local authorities of a rural nature. The relatively high ranking of many rural areas in the SIMDs is explained by small numbers of high income households that disproportionately raise the income averages in sparsely populated rural datazones. Clearly, the use of SIMDs is distorting the nationwide picture of fuel poverty because areas of multiple deprivation concentrate in urban areas, whereas fuel poverty is more prevalent amongst rural households but is dispersed over much larger regions.

Another common assumption is to attribute the higher levels of fuel poverty in rural areas to higher numbers of off-gas and hard to treat properties, and households on lower incomes. However, our analysis of actual fuel spend data from a sample of rural and urban properties, all on gas mains and of similar build types, shows this assumption is also invalid for rural households.



**Figure 2. Average daily spend on gas by SIMD domain for urban, peri-urban and rural households in Renfrewshire**

Figure 2 shows that the average daily spend on gas decreases for rural households in Renfrewshire, and also for peri-urban households (concentrations in or bordering rural areas). The data used for this study was robust enough to allow us to control for and normalise many variables known to be factors in higher heating costs, irrespective of rurality, and so the results are strong enough to lead us to conclude that that low income rural households spend significantly more on heating than their urban equivalents, and that this difference is currently insufficiently accounted for.

This higher spend is partly explained by geography and exposure, but is also widely thought to be influenced by other factors including urban-rural differences in household behaviour and vulnerability. Our Speird Project is now validating these findings across four new regions, and conducting a pilot study on rural behaviours, and a new project to develop a risk-based assessment of vulnerability to fuel poverty and the influences of mental health is now under development.