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Author Name: Aimee Ambrose

Author Company: Sheffield Hallam University

Second Author's Name:

Abstract Title: Improving the energy efficiency of the housing stock: evidence from the UK and NZ

Abstract Text:

The housing stock in the UK is the least efficient in Europe and also some of the oldest with 20 per cent of dwellings built before 1919. Such properties expose occupants to dangerously cold conditions and contribute to the highest levels of fuel poverty in Western Europe (17 per cent of the households in 2011), despite benefitting from lower energy prices. This situation is mirrored and arguably worse in New Zealand (NZ) where in some areas 47 per cent of households suffer fuel poverty and indoor temperatures regularly fall below 10 degrees in winter. (Howden-Chapman et al, 2010). There are two main ways of tackling this issue: through the replacement of existing housing with new, low energy homes and by improving the energy performance of the existing stock. This paper presents findings from UK and NZ studies looking at different aspects of these two approaches. The first employs video to understand the realities of living in purpose built 'eco-housing' and issues around the human-technical interface which prevent eco-homes from realising their energy and carbon saving potential. The second considers why UK and NZ policies and initiatives have so far failed to convince private landlords of the benefits of improving the energy efficiency of their properties. Practice, identity and transition theories are employed to help understand the limitations of both approaches. The findings and lessons identified will be of international interest and will resonate with all countries grappling with fuel poverty and an ageing and inefficient housing stock.