Zero-carbon homes have become an icon of policy ambitions, with the 2016 target for new homes the subject of much debate as to exactly how it should and can be achieved and the adequacy of accompanying policy and regulatory measures. Achieving zero carbon homes is not just a matter of built design but also of how these homes are lived in. This project will examine the assumptions and expectations about behaviours and practices that are embedded within the building concepts and designs that are being developed to fulfil zero-carbon criteria. What types of users, routines and habits are being assumed, are these homogeneous or diverse? What changes from any notional standard, common, or normal sets of practices are being built in, what is assumed to be non-negotiable and necessary for homes to be viable and desirable in market terms? How do practices shift when zero-carbon homes are inhabited and how might these change over time? To what extent are identical homes inhabited in different ways and with what implications for their sustainability in action? What can we learn about different national contexts of zero-carbon living? How do debates and practices compare and contrast between the UK and Germany, where zero-carbon living has been the subject of early innovation through initiatives such as passive-haus? The study will involve document analysis, case studies, key informant interviews and observation to understand of the effectiveness of infrastructural interventions and the ways in which habits change in a domestic context.

This project is one of seven being undertaken in the Sustainable Practices Group which is funded by a £1.5 million research grant from EPSRC/DEFRA. The essence of the programme of work is to enhance the social scientific understanding of habitual behaviour in areas of everyday consumption with consequences for sustainability. We recognise that sustainability is a complex and multi-dimensional concept, including issues of justice and welfare, but we focus particularly on environmental sustainability and the challenge of climate change. The group will provide a multi-level analysis of three environmentally-sensitive practices – eating, water-use and sheltering – and will include a series of action research interventions with stakeholder organizations in the vein of ‘interactive social science’. The group will engage closely with key stakeholders in the design and dissemination of the research.