

**EPSRC DOCTORAL TRAINING PARTNERSHIP PHD STUDENTSHIP 2019/2020 ENTRY**

<b>Title</b>
Domestic energy reduction and tackling vulnerability
<b>Theme</b>
Energy Use and Energy Efficiency
<b>Location</b>
University of Exeter, Streatham Campus, Exeter EX4 4QJ
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<b>Project description</b>
<p>Energy vulnerability, and the closely related concept of fuel poverty, refers to problems of inadequate access to energy required to meet basic needs, and issues of health, wellbeing, and social participation that arise from lack of access (Bouzarovski et al. 2014). Problems of access have conventionally been characterized as related to lack of service provision (for example in off-grid communities), inability to afford energy costs, and poor quality infrastructure. More recently research has begun to address a far wider range of contextual factors that impact on energy vulnerabilities, including people’s personal circumstances, such as whether or not they are in work, and the escalation of energy ‘needs’ for full social participation (Butler et al. 2014). Research has also pointed out how certain policies oriented to reducing demand and decarbonizing energy sources can exacerbate existing patterns of vulnerability (e.g. Bickerstaff et al, 2013; Gillard et al. 2017).</p> <p>Recent years have seen multiple forms of innovation related to energy demand management (Stilgoe et al. 2013) such as the roll out of smart meters and smart prepayment meters, the development of smart thermostats and the deployment of policy and market innovations relating to tariffs and strategies for improving efficiency, competition, and fuel poverty targeting. Whilst there are now some groundbreaking studies that address specific innovations (e.g. Hodges et al, 2016 on smart prepayment meters) there is, at this stage, little systematic research across the demand management arena that provides a broad assessment of the social and economic impacts of interventions and as such their consequences, individually and collectively, for the patterning of energy vulnerability. Following on from this, the aims of this PhD studentship are twofold; a) to examine how new modes of intervening in domestic energy demand are having (un)intended consequences in different social contexts; and b) to understand the implications of these impacts for the creation, amelioration, or reinforcement of patterns of energy vulnerability.</p> <p>The research will utilize a case study approach, identifying, and conducting in-depth inquiry with a range of household cohorts that are, in certain respects, considered vulnerable (e.g. in terms of income, energy needs, heating costs) and who have direct experience of demand management interventions. The project will also address the influence of household relations (such as gender) in mediating the consequences of demand management interventions. The project will utilize both quantitative and qualitative data collection methods (such as surveys, repeat-</p>

interviews and focus groups) to generate a rich understanding of household experiences. The research design will also extend to include interviews with a range of connected stakeholders (including social landlords, policy-makers and charities). The case study approach will support a detailed understanding of how demand management innovations are reshaping energy vulnerabilities in the UK.

At all stages this research will include close collaboration with the Centre for Sustainable Energy, CSE is an independent charity with a leading national reputation for excellence in fuel poverty research, energy policy analysis and community engagement in sustainable energy. CSE will provide critical support, advice (e.g. in terms of identification of case studies) and opportunities for collaborative fieldwork, as well as enabling the study to achieve impact with non-academic user groups.