# Horizon’s Psychology research on energy

Energy monitors can be presented to people in terms of saving costs or in terms of saving carbon emissions and in particular the most recent smart meter consultation in the UK has sought views on whether carbon emissions should be a basic requirement on energy monitors to be rolled out across the UK by 2020. We propose to conduct a series of experimental studies in order to examine the psychological impact of describing energy displays in terms of costs or carbon emissions.

Previous research has indicated that energy monitoring feedback raises energy visibility and awareness. Social psychological theory also suggests that energy monitoring may also make the topic of climate change more salient and help to reduce the psychological distance that people have with climate change. This is particularly likely when energy is described in terms of carbon emissions. For the purposes of examining these hypotheses in a controlled experimental situation, we have developed an online energy monitoring tool which allows participants to input their daily energy using activities and interact with this in order to reach a specific energy reduction goal. For some participants the energy tool will be described in terms of cost and for others this will be described in terms of carbon emissions. We will then use a combination of direct questions and psychological tasks in order to examine the salience of climate change and the perceived psychological distance of climate change within participants.

Further social and environmental research on values and goals suggests that describing energy use in terms of costs will highlight quite different values and goals than if these are described in terms of carbon emissions. Cost is thought to be associated with values that are termed ‘self-enhancement’ which are linked with ideas of achievement and power whilst environmental ideals are thought to be related to values that are termed ‘self-transcendent’ which are related to ideas of altruism and benevolence. Theoretically, ‘self-enhancement’ values and ‘self-transcendent’ values are negatively related and therefore describing energy in terms of cost may actually decrease the likelihood that people act in an environmentally friendly manner. Similarly, describing energy in terms of carbon may decrease the likelihood that people focus on achievement and power in their behaviour. To test these ideas, we will again use the online energy monitoring tool described in terms of cost or in terms of carbon to engage participants with energy. We will then use both direct and indirect measures of values and goals in order to examine whether the participants experience of interacting with the game affects the activation of these.

## Researchers

### Alexa Spence – Transitional Research Fellow

Spence’s research experience includes time spent within both the academic and public sectors and has been involved with research within social, economic, and environmental psychology. Her primary area of expertise is within social cognition and risk and she has professional memberships of the British Psychological Society, the European Association of Social Psychologists, the European Social Cognition Network, the National Energy Research Network and the Society for Risk Analysis. She is also a member of the UK Energy Research Centre. She completed her doctorate at the University of Nottingham on the topic of perceptions and behaviour relating to genetically modified (GM) food. Her postdoctoral experience comprises several posts based both at the University of Nottingham and Cardiff University and has focused on applying social psychological theory to current topical risk issues. In particular she has been involved in research on climate change and energy issues, examining related public perceptions, issues of acceptance, and behaviour. She has recently been involved in a large national British survey of public perceptions of energy and climate change, since partially replicated in Australia, and is currently involved with two projects examining energy monitoring systems and a further project examining public perceptions and acceptance of the future transformation of the UK energy system.

### Caroline Leygue – Research Fellow

Caroline Leygue is a Research Fellow in Horizon. Her background is in Psychology, and her area of expertise is Social Cognition. She is interested in attitudes, behaviour, and values, in particular the study of automatic and controlled processes. Her research has applied psychological theory to health, social and organizational behaviour, and marketing. She completed her PhD in Paris, studying attitude ambivalence towards healthy behaviours. Her postdoctoral work includes posts at the INSEAD Business School, Cardiff University and the University of Nottingham. In Horizon, her work focuses on priming and values in environmental behaviours, and emotional processes.