

ABSTRACTS

Anna Carlsson-Hyslop, University of Manchester

BUILDING AND MANAGING ENERGY DEMAND IN BRITISH COUNCIL HOUSING

How did energy demand emerge in British council housing between ca 1945 and 1970? I will give historical examples of how energy demand was built and managed, and how this interacted with energy using practises, in council housing built by three very different local authorities: Stocksbridge Unitary District Council outside Sheffield, the New Town Corporation of Stevenage and the London County Council (LCC) (later Greater London Council, GLC). Stevenage will be used to illustrate how energy demand was built into new housing, in particular showing how this explicitly modern New Town remained fairly traditional in relation to domestic energy use, with similar systems built into houses there as in the other case studies. Stocksbridge will be used to exemplify how energy demand has been managed: the many layers of retrofitting, by the Council and tenants alike, that has gone into energy demand in council housing built at different times. In particular, I will focus on the installation of different kinds of ring mains and how this interacted with demand. Finally, I will discuss surveys conducted into resident's views of heating systems at LCC, using this to begin a discussion about how we can understand the development of energy-using practices in the past.

DECC (2013) United Kingdom Housing Energy Factfile, J.Palmer and I Cooper.

<https://www.gov.uk/government/publications/united-kingdom-housing-energy-fact-file-2013>.

Take a look at the historical graphs of energy use trends 1970-2011.

Conor Harrison, Department of Geography, University of South Carolina

HISTORIES OF SUPPLY AND IMPLICATIONS FOR DEMAND

The histories of electricity demand are inextricably tied to those of electricity supply. Much of the design of electricity production infrastructures, as well as the institutional and corporate forms that have developed alongside them, has been developed to try to cope with variability in electricity demand. As illustrated by the case of Carolina Power and Light, an electric utility operating in North Carolina, this presentation examines three ways in which electric utilities in the United States have tried to achieve and maintain profitability in the face of variable electricity demand.

The first way involved the active pursuit of state regulation in order to be deemed a 'natural' monopoly in the early 1900s. This provided utilities with the stability to attract investment capital, while also allowing for restructured rates to attract industrial users. The second way is the development and design of rate structures specifically designed to 'induce' electricity consumption during the 1930s. These rates were complemented by aggressive electric company appliance sales programs designed to further boost electricity consumption in homes. Finally, by the 1950s electric utilities continued their focus on building residential electricity demand, this time incentivizing homebuilders to construct 'all-electric' houses. The effect of each of these strategies has been to instill patterns and expectations of electricity consumption that complement electricity production patterns most suitable for sustained electric utility profitability.

Harrison, C. (2013) 'Accomplished by methods which are indefensible': Electric utilities, finance, and the natural barriers to accumulation, *Geoforum*, 49:173-183

Greg Marsden, Leeds University

DISRUPTIONS AND ENERGY FUTURES

The pathways for social change are not easy to forecast nor are they predictable and linear. This presentation looks at change scenarios by considering incremental change and more radical and rapid points of change. The session draws from a research project on mobility which looks to see what can be learnt by studying behaviour in moments where the infrastructure or social system experiences significant change. It considers questions of what changes and why and what can be learnt from that. Issues of scale, control and longevity are addressed. It then turns to understanding and provoking discussion about what 'radical change' actually means in a complex and highly connected society.

Marsden, G. and Docherty, I. (2013) Insights on disruptions as opportunities for transport policy change, *Transportation Research Part A*, 51, 46-55

Michael Stauffacher, ETH Zürich

ENVISIONING, CONSTRUCTING AND EXPLORING ENERGY FUTURES BY SCENARIO ANALYSIS

Exploring the future is learning to cope with the complexities and irreducible uncertainties of how our society will develop. One can do this intuitively or try to follow certain procedural rules or combine both. Since the late 60s many tools and methods have been proposed though only few really applied more broadly. Developed in the military sector and widely used in the business sector, scenarios found their way into environmental sciences in the early 1970s with the report of the Club of Rome but on other hand are still rarely used in the social sciences. This seminar will introduce some core ideas of scenario analysis to illustrate how thinking in scenarios (i.e. multiple futures) can help coping with uncertainties by making the known unknowns explicit; and to offer a systematic approach to build scenarios that can help complement intuitive thinking, by making different futures comparable, spanning a broad spectrum and being not restricted to their most salient characteristics only.

Trutnevyte, E., Stauffacher, M. (2012). Opening up to a critical review of ambitious energy goals: Perspectives of academics and practitioners in a rural Swiss community. *Environmental Development*. 2:101–116. DOI 10.1016/j.envdev.2012.01.001

Stauffacher, M. & Scholz, R.W. (2013). HES based transdisciplinary case studies: the example of sustainable transformation of leisure traffic in the city of Basel. In: Mieg, H.A. & Töpfer, K. (Eds). *Institutional and Social Innovation for Sustainable Urban Development*. Routledge (pp 25-43)

Lenneke Kuijer, University of Sheffield

IF ONLY PEOPLE WOULD STOP SHOWERING AND START WASHING FROM A BUCKET ...

... is not some random idea, but has actually been the result of elaborate research. It has also formed the start of a design process producing the concept of 'splashing'. This presentation will relate the story of splash and explain the practice-oriented design process underlying it. Practice-oriented design has emerged in response to increasing concerns of product designers with the environmental impacts of their outputs and the realisation that sustainability issues lie at a scale and level of complexity that are ill at ease with design's mainstream focus on products and users. Inspired by the conceptual frameworks provided by theories of practice, practice-oriented design revolves around performance, is participatory and iterative, and entails catalysing social change by creating non-everyday crises of routine. Performances are central in the process, because in performance people creatively break and shift existing configurations of elements into (less resource intensive) alternatives that (have potential to) work. These alternatives are called proto-practices, a concept that will be explored in the group work.

Scott, Kakee, Conny Bakker, and Jaco Quist. "Designing change by living change." *Design Studies* 33.3 (2012): 279-297.

Kuijer, Lenneke, Annelise de Jong, and Daan van Eijk. "Practices as a unit of design: An exploration of theoretical guidelines in a study on bathing." *ACM Transactions on Computer-Human Interaction (TOCHI)* 20.4 (2013): 21.