

People and their energy consumption

Household lighting and consumer electronics



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Carbon Reduction in Buildings (CaRB): A socio-technical, longitudinal study of carbon use in buildings

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Outline of presentation

- **The focus of the research**
- **Methodology**
- **Findings**
- **Policy implications**

Domestic lighting and consumer electronics

- **Domestic lighting and consumer electronics are responsible for considerable increases in household energy use**
 - Consumer electronics will constitute the biggest single sector of domestic electricity consumption in the UK by 2010
 - In the UK the energy used for domestic lighting grew 63% between 1970 and 2000 and by 11 per cent between 1990 and 2000
- **To unpack the reasons for these increases 40 in-depth interviews were conducted with householders the spring of 2006**

Methodology

- **Household lighting and infotainment practices**
- **Research method- interviews involving hour long conversations with research participants which were guided by a set of research topics**
- **The interviews were designed to uncover**
 - How research participants currently use lighting and consumer electronics in their home
 - How this may have changed over time
 - What kind of household lighting and consumer electronics they aspire to in the future
 - Why they made particular choices in the purchase and use of consumer electronics and lighting

Changing household lighting practices

- All of the interviewees stated that they currently use more lighting in their home than in the past
- Why?
 - Respondents said they had changed the way they light certain rooms in their home to create a “**better atmosphere**” and give them more “**flexibility**” to change lighting “**to create different moods**” and “**accentuate**” different parts of their home
- All but one of the interviewees said that the style, design and flexibility of their household lighting are now more important than they were in the past

Changing household infotainment practices

- **All interviewees stated that they now use more consumer electronics in their home than in the past**
- **Why?**
 - *“Mobile telephones and computers and stuff are an essential part of modern living”*
 - *“I don’t think any family in this day and age will have only one television”*
- **All interviewees said that consumer electronics and how they look are now more important than they were in the past**
 - Most respondents expressed a desire for less obtrusive and more stylish consumer electronics - particularly the case for televisions

Style and environmental concerns

- **The importance of aesthetics or style were evident in all the interviews - even when respondents used environmental criteria in other aspects of their energy consumption**
 - *“I was fully aware when I bought them that halogen lights are not really environmentally friendly or ecologically sound, it was a specific style choice”.*
 - *“I wasn’t going to have one of those huge ugly silver televisions every one has. I wanted something which had style and would not dominate the room too much”*

The influence of the media

- **Lighting and infotainment practices are influenced by the presentation of lighting and consumer electronics in the media-**
 - In the case of lighting TV home style programs and home style magazines were revealed to be particularly influential with one or other being mentioned by most respondents
 - In the case of consumer electronics future expectations are influenced by the presentation of new technologies in TV advertising with most respondents stating that they had seen a TV, sound system, computer, mobile telephone, etc on TV they would like to own

Energy intensive behaviours

- **The design and marketing of televisions**
 - *Using televisions as electronic picture frames*
 - *Leaving the TV on standby: laziness or design?*
 - *Digital Radio via cable TV*
 - *Individualised electronic entertainment*
- **The design and marketing of lighting**
 - *Encouraging increases in the number of lighting sources*
- **Householders are changing their homes and lifestyles to fit energy intensive behaviours**

Findings

- **Householders' choice of consumer electronics and lighting tend to co-evolve with the and presentation of these technologies in the media**
- **A desire to have stylish interiors can override environmental principles**
- **The design and marketing of consumer electronics and the services which support them actively encourages energy intensive behaviours**
- **The design and marketing of household lighting actively encourages energy intensive behaviours**
- **Householders are changing their homes and lifestyles to fit energy intensive behaviours**

Policy implications

- **Increases in the energy consumed by consumer electronics and lighting in the home is market led**
- **Reducing the amount of energy used by consumer electronics and lighting in the home will necessitate opening up a dialogue with those involved in the design and marketing of consumer electronics and lighting to identify the energy implications of new products and services**