



## Energy project briefs background

### Project statement

“To identify opportunities for new energy services for London “Able to pay” owner occupiers which could substantially reduce Carbon dioxide emissions”.

### Background

Residential households make up a significant part of total energy demand and CO<sub>2</sub> emissions – about one third in the UK as a whole, and up to 45% in London.<sup>1</sup> Domestic energy use is therefore of major importance to the success of the Climate Change Programme and the longer-term imperative of cutting emission sharply to avoid damaging climate change.

Clearly, reducing energy use through efficiency gains has a crucial role to play. According to the 2003 Energy White Paper: “The cheapest, cleanest and safest way of addressing our energy policy objectives is to use less energy”.<sup>2</sup>

Most domestic emissions do not come from fuel poor households, but from the “fuel rich” or “able-to-pay” sector. In London the non-fuel poor sector (both owner occupied and rented) accounts for 38% of all CO<sub>2</sub> emissions - about 16 million tonnes a year. This represents the great majority of domestic emissions.

The crucial fact about this sector is that they are able to invest in their own energy efficiency and home generation. Unlike the fuel poor, where the task is to identify eligible households and undertake free measures, the aim with the fuel rich is to motivate and support investment by householders themselves.

### Design Council RED team

The Design Council is a publicly funded body tasked with making UK managers the best users of design, and has a track record in making social and economic change through the application of design. The RED team within the Design Council uses design methodology and the creativity of designers to produce new approaches and solutions to intractable problems. Through focusing on users and combining this with expertise from within appropriate fields design provides a space for innovation. Previous projects have included; investigating how the interaction between citizen and state could be redesigned to enhance a sense of nationality; and most recently developing new approaches to the question of public health focusing on chronic condition management and prevention.

The team is led by Robin Murray, and includes a core team of designers and policy experts.

For further information on RED and the work that we are doing please look at our weblog at: <http://www.designcouncil.org.uk/red/>

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<sup>1</sup> Environmental Change Unit (2005) *40% house* Oxford University, p 11; GLA (2004) *Green Light to Clean Power: The Mayor's Energy Strategy* p 13

<sup>2</sup> DTI (2003) *Our Energy future – Creating a low carbon economy* p 32

## **BRIEF E: Draught exclusion**

Our initial user research has encouraged us to pay more attention to the considerable energy losses that occur through the draughtiness of typical homes. As part of our research we have worked with a Canadian energy audit approach that is able to measure the air / draught permeability of any house. The results of this test are presented to householders as an equivalent “hole-in-the-wall” dimension. Some of the London householders that we have worked with – often in Victorian or similar housing stock - have been surprised to learn that their home is as draughty in total as if they had created a one-metre-square hole in their wall..!

Draughts lose energy, typically through poorly sealed doors, older sash windows, venting, etc.

In the RED team, we have been curious about the use in days-gone-by of that particularly vernacular product, the draught excluder. These soft furnishings products, often lovingly home-made or purchased at the local church craft sale – perhaps in a facsimile of a stuffed snake or sausage dog – seem have fallen out of favour in the contemporary styled home. Perhaps now is the time to re-discover draught exclusion, not just for doors, but for windows and vents and other areas of the home.

There is a design challenge to take on this playful brief. Issues worth re-considering might include;

- Mass manufactured door excluders that match contemporary home decoration...
- Alternatives to difficult-to-DIY self adhesive strip excluders for doors and windows...
- Secondary glazing systems for older windows that look attractive , even desirable...

The domestic energy agenda is moving out of the realm of the enthusiasts and into mainstream everyday life. As this trend continues, design will have increasing leverage in differentiating one energy conservation technology provider over another. Brand communication, retail, service and product design will each have a greater role to play.

In considering this challenge there are a number of related or adjacent issues that might be worth thinking about;

- What effect could new draught proofing approaches have on the household's patterns of behaviour?
- Is there a new, aspirational aesthetic for home energy products?
- What enhanced functionality would make people more aware of household CO<sub>2</sub> emissions?
- How might energy utility companies harness this approach to help their customer relationships?
- Is there scope for new retail approaches to selling draught exclusion solutions for homes?