

Households as energy end-users – and more

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A great deal of research has been carried out on households as energy users, often referred to as ‘end-users’. This presents the householder as someone at the end of a long chain of processes and technologies. For example, s/he is able to cook dinner because far away others have mined coal or built a dam, designed a turbine, and installed pipes and wires to the home. At the end of all this activity is the energy service – intense heat – and a cooked meal. The cook will normally pay a fixed sum per kWh of delivered gas or electricity, some time after using it, along with payment for many other such energy services and without knowing how the payment relates to each service. This end-user normally lives in an industrialised country, with access to far more power or ‘energy slaves’ than his or her forebears, but often with little understanding of how it is so readily available.

The term does not make much sense in relation to the millions of energy users who collect or buy solid fuel and burn it when necessary to give them warmth, cooked food or cleanliness. There, the end-user at the end of the process is also the supplier at the beginning. It is good to remember what a difference it can make to move from being in a position where fuel resources are clearly finite, to one in which they keep flowing for as long as the user can tap them. Shifts to ‘softer’ energy paths reverse some of this movement, matching diverse resources more closely to particular uses and making the processes clearer and more transparent. We are now starting to analyse how households react to different types of renewable deployment, depending on whether they involve distant large-scale processes and infrastructures or more local and visible energy sources. Whether renewables are ‘hard’ or ‘soft’ depend greatly on scale and commercial considerations, and it will also affect the ways in which our households develop.

The picture of the household at the ‘end of the line’ has become too familiar, though, even for all those households among the small customers of the big utilities who are not microgenerators or innovators. Even there, householders are often more various and interesting than we allow for. It is time to recognise more fully the contribution that is being made by researchers (many of them in Scandinavia) who are showing us how people ‘domesticate’ technology, adapting it to their own practices and aspirations, and leading to some surprising outcomes. They also demonstrate through more quantitative analysis that consumers are using energy in many distinctive ways that relate to their social practices. The language that householders employ to describe their energy use can be strikingly different from the language spoken on the supply side of energy systems, and also from that used by the promoters of energy efficiency. When we add the roles of microgenerator, home retrofitter and renewable heat manager to that of end-user, the possibilities for rethinking energy use multiply. Findings such as these should make us very careful in our predictions, at the same time as they encourage us to be bolder in our research methods.