Large Technical Systems in Households – Visualising and Understanding the Consumption of Water and Energy as Socio-Technical Processes

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A sustainable society demands, among other things, decreased household consumption of water and energy. Water and energy differ from other consumer goods in that they are provided by large technical systems. The proposed project will, from a consumer perspective, study the interface between user and system at a time when water and energy systems are becoming more differentiated (e.g. the liberalisation of the energy sector, introduction of volumetric billing of water and energy). These changes may improve resource efficiency, but they also place greater emphasis on the ability to gain access to and use information, to pay for new installations and perhaps spend time on management. Different households have different potential to meet these demands. By visualising household resources in a wide sense; economy, language capacity, education, IT-ability, etc, this study attempts to understand how ‘resource-strong’ and ‘resource-poor’ households respond to contemporary changes in water and energy systems and what it means in terms of sustainable consumption patterns. Then we can identify how the technical systems should change to reach all groups in society. Two municipalities will be selected as case studies in examining time-diaries and in making observations, interviews and measurements. In each of the municipalities, households will be selected from two blocks of flats with diverging socio-economic character but with comparable socio-technical systems.