

From Consciousness to Action? Perceived Options to Reduce Electricity Consumption in Private Households

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1. In order to prepare the development of regional action plans for electricity saving within the EL-EFF Region project, empirical surveys on electricity use in private households have been conducted in all eight participating regions in spring 2007. This article aims to focus on one of the most relevant findings of these surveys, which is the perceived gap between knowledge about efficient electricity use, and perceived options thereof.. Additionally, some conclusions about the design of campaigns and preparatory empirical research in energy policy will be drawn against this background.

The objectives of these regional surveys were to explore the interviewees' general behaviour and purchasing preferences with regard to electrical appliances, to analyse the information channels most commonly used by end-users, and also to identify areas where more information about behavioural options is requested.¹ Most of the surveys were conducted by professional market research companies by means of phone interviews. The number of representatively selected respondents varied from 200 (Navarra, Spain) to 550 households (Västra Götaland, Sweden). Socio-demographic information (e.g., age, gender, household size, partly income/education) of the respondents has been reflected. Although the surveys were similar in objectives and structures, all eight studies are only loosely related to each other, since they focus on different aspects of efficient electricity use. Therefore, the comparability of findings is limited.

2. Summing up the available information from the surveys, it can be stated that the majority of respondents in most of the participating regions are well aware of the issue of energy consumption in their private environment. Meanwhile, especially when an appliance is being purchased, the energy efficiency level of the device has become a decisive factor, as the respondents especially in Upper Austria (80%), Saxony (87%), South Bohemia and Västra Götaland reply. In other regions, especially in Ile-de-France (41%) and Pomerania (51%), lower levels of awareness could be recognised. However, the latter simultaneously express a high interest and need for further information (68%).

As expected, the regional surveys reveal a strong **socio-demographic differentiation of awareness and knowledge**. The level of awareness, for example, corresponds with age, (elderly in Västra Göteland, middle aged persons in Saxony have higher levels of awareness), gender (woman in Västra Göteland), education (higher educational level in Saxonia) and income.

¹ The surveys can be downloadd from the project homepage
(<http://www.efficient-electricity.info/efficient-electricity/index.php?id=1753&L=1Äf%252>)

(3) The surveys show, however, that the **knowledge level about saving measures and behavioural options** to reduce electricity consumption at home is quite low throughout the regions. In almost all regions, “switching off the lights when they are not used” or “choose suitable lighting and efficient bulbs” are seen as the most important and most obvious options to save electricity (78% in South Bohemia, 69% in Pomerania, 50% in Navarra, 42% in Madrid Region). Other important saving measures were seen in “using energy efficient appliances” (66% in South Bohemia, 32% in Madrid) or “switching off home entertainment devices” (57% in Pomerania, 7% in Madrid). However, there was a noticeable underestimation of the energy saving potentials of other appliances and individual actions, such as washing at lower temperature, reducing stand-by energy consumption of electrical appliances by means of switchable multiple sockets, or the use of energy-efficient circulation pumps in heating systems.

Examples for this need for further information are:

- In South Bohemia, $\frac{3}{4}$ of the respondents were not able to name electricity saving measures without the help of options listed in the questionnaire.
- About 18% of the interviewees in Pomerania admitted that they do not try to save electricity in their households.
- In Ile-de-France, people with the lowest income do little even on cost-free or cheap measures.

4. Conclusions highlight relevant aspects for the design and implementation of public efficiency campaigns focussing on reducing electricity use in private households. Although the material of the empirical surveys was rather limited and difficult to compare, some general presumptions (“*myths*”) about efficiency campaigns can be questioned:

- (1)** As a first result it can be summed up that campaigns and initiatives have not yet adequately reached their target groups and have not been able to produce a stable body of awareness and knowledge throughout Europe. The available empirical material shows that there are still large blind spots in public awareness, differentiated in regional and social terms (age, education, gender, income). The strong need for further information on different levels of energy consumption and energy saving potentials of household devices, as well as on behavioural options on what can be done individually, has to be satisfied by ongoing facilitating measures such as public campaigns and continuous public relations. However, these campaigns and initiatives have to clearly reflect both the specific regional context, in which a campaign is started, and the social background of target groups to be addressed. This is also related to the information sources that target groups of campaigns usually use:

although the studies done within EL-EFF Regions show that for young people the Internet has also become an important channel, the usual media (press and TV), is obviously still the main source of information, whereas there seems to be an obvious need to systematically collaborate with the staff at appliance and furniture shops, as especially the Austrian and Swedish examples suggest.

- (2)** The second conclusion is that the basic data, for example for designing campaigns, is obviously not consistent. The example of the alleged use of energy efficient bulbs (CFLs) reveals two contradictory pieces of information: On the one hand, a high share of respondents mention that they already use CFLs at home. On the other hand, though, these specifications are not confirmed by available market data when the number of potentially purchased CFLs (e.g., estimated on the basis of representative surveys) is compared to “real” sales figures. Presumably, this gap between “saying” and “doing” is – among other reasons – due to the suggestive effects of such surveys. For this reason there is a need to validate bottom-up calculations (e.g., on the basis of representative surveys) with top-down data (e.g., on the basis of available market data).

- (3)** A conclusion addresses the naïve belief that information or campaigns as such automatically change individual behaviour or behaviour at the household level. Findings from the regional surveys show that differentiated policy packages, with a thorough mix of country-specific information packages (e.g., labelling), economic incentives and promotion programmes, and education, for example of sales staff, are required, in which campaigns of course play an important role. The limitations of individual action, however, point also to structural dimensions of end-use energy: The structure of energy supply, the level of living standards, the increasing share of households living in “energy poverty” throughout Europe, etc. relativise (and limit) the optimistically calculated technical potentials of individual changes in electricity use and purchase decisions. The interlinkages between the individual and household level and the structural level still require a social learning process, in which we are just at the beginning.