

## Gatekeepers changing consumers' behaviour in energy consumption

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**Abstract—** Changing people's behaviour and reducing energy consumption has proved to be more difficult than attitudes or technical possibilities would imply. In this paper we discuss how to intervene the individual decisions that significantly determine energy consumption. When analysing energy-relevant decisions, we have noticed that the scale of energy-relevant decisions varies greatly in accordance with the situation in life. There are once-in-a-lifetime decisions (e.g. choosing the family home) that set the energy consumption, at a relatively fixed level, for years to come. When examining energy decisions further, the prime importance of gatekeepers emerges: they are professional and peer opinion leaders as well as retail organisations that influence consumers' energy choices. However, many potential gatekeepers do not see themselves as actors playing a major role in the energy question. Yet these specialists define the choice environments in which consumers make important energy decisions. This study identifies groups at stake in influencing significant energy decisions of the consumers. Our purpose is to broaden the scope of persons and organisations that are actors in the field of energy saving and thus improve the ability of consumers to lower their energy needs.

### I. CHALLENGE: ATTITUDES DO NOT TURN INTO ACTIONS

Year by year, poll by poll the consciousness, concern and knowledge on climate change amongst Finns has grown stronger and stronger (Kuittinen et al. 2008). Today practically every Finn (90%) thinks that climate change is an established fact and almost as many (85%) consider it a serious threat and is ready to take personal action (80 %).<sup>i</sup> There are no remarkable differences amongst population groups. It is hard to find any other issue in society in which such unanimity would be reached as in attitudes towards climate change.

However, the household energy consumption has increased as part of the increase of total energy consumption in Finland.<sup>ii</sup> Changing people's behaviour and reducing energy consumption has proved to be more difficult than the surveys on attitudes or technical possibilities would imply.

This paper aims to offer one answer to the question of how consumers' energy decisions

could be turned into wider low-energy lifestyles. Part of the ideas presented in this paper have been developed in the background study by Demos Helsinki think tank commissioned by Sitra's Energy Programme to ground a project targeted at changing consumers' energy behaviour.<sup>iii</sup>

Behavioural change is often interpreted as a matter of changing social practices: new information acquired by people or new material objects present in behaviour reshape the practice. Understanding practices opens perspectives to several alternative paths through which an intervention can be carried out.<sup>iv v vi</sup> Direct shaping of practices is not an easy task. Practices (or their components such as physical objects, visible activities or social understanding) are always mediated by people and their relationship with others. We have previously studied the long history of public intervention in different social issues.<sup>vii</sup> A popular way of remoulding practices has been to educate actors from above. This approach has been criticised for under-

estimating the complexity of modern society and citizens' active and critical attitude towards commands in highly educated nations.<sup>viii ix</sup> Therefore the focus of policies targeting behavioural change has shifted towards deliberative and participatory measures.<sup>x</sup> These measures are interventions that target a number of different stakeholders (both professionals and laymen) and offer mitigation tools to grasp the challenge from the viewpoint of their own everyday practices.

A well-known Finnish intervention success story has been the improvement of the national health with the implementation of *The North Karelia Project* as its prime case. This project, aimed at reducing cardiovascular diseases, had also to do with broad lifestyle choices and is consequently a relevant lesson to apply when one strives for change in energy behaviour. It is one of the few interventions that have applied a wide theoretical framework. It is a remarkable example of addressing multiple stakeholders and combining various intervention types. In *The North Karelia Project* it was understood that lifestyle choices could not be changed simply by expert decisions or institutional structures or by information and education. It required creating new practices and cultural change at the community level. Besides improving health care services and exercising public education and campaigning, professionals in various fields, such as nurses and cooks, were trained and new services and products developed. A central role was also given to peer support by training influential individuals in the community.<sup>xi</sup> Together these actions initiated different forms of new practices that were not rules or tools handed down from the top to the bottom. This approach of combining several intervention types working in conjunction in behaviour change programmes has been proved to be effective in many intervention studies in general, and in those reviewing energy-related behaviour in particular.<sup>xii xiii</sup>

In the project afore mentioned, we aim to frame an effective intervention for changing

energy behaviour of citizens, i.e. for advancing significant energy saving and thus lowering the demand for energy. For the purpose, this paper describes how we can identify the decisions in life that are significant in terms of energy consumption, as well as who are the relevant actors that affect the decision-making processes. Our objective is to enlarge the scope of persons and organisations that are considered actors in the field of energy saving.

## II. UNDERSTANDING ENERGY DECISIONS

### *A. Relevant energy decisions*

Traditional energy saving campaigning has portrayed small practical acts, such as changing light bulbs or lowering room temperature, and has rarely addressed the issue from a more comprehensive lifestyle point of view. Here we seek to identify the most important fields of everyday life as regards to energy consumption.

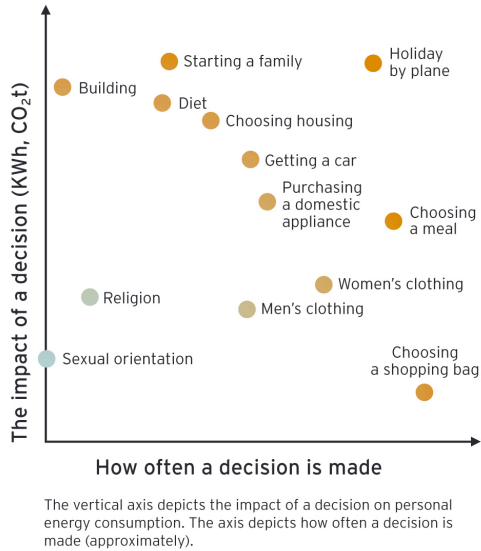
Many energy decisions also have cross impacts on other fields of consumption. The place of home relates directly to energy consumption by limiting the heating options. At the same time the indirect effect on transportation might be as relevant if a private vehicle is needed to get about.

Behaviours related to household energy saving can be divided into efficiency (one-shot decisions, e.g. purchasing energy-efficient equipment) and curtailment behaviours (repetitive efforts to reduce energy-use, e.g. by lowering the room temperature.<sup>xv xvi</sup> Energy-saving potential of efficiency is considered greater than that of curtailment behaviour but still reviews have revealed that most of the interventions target curtailment behaviours.<sup>xvii</sup>

To find the most significant energy decisions in each of the six fields of life, we have analysed different stages of life and their energy-related (either implicit or explicit) decisions. In the **figure 1** the vertical axis depicts the impact of a decision on personal en-

ergy consumption. The horizontal axis depicts how often a decision is made.

We have cross-tabled decisions by impact and frequency to get a picture of the most relevant energy decisions. This gives us four different types of decisions (**figure 2**).



**Figure 1.** Examples of different energy-related decisions divided by the impact and frequency of the decisions. The impacts of decisions are suggestive.



**Figure 2.** Fourfold table of energy-related decisions divided by the impact and frequency of the decisions.

We call the first group *secondary decisions*, the choices that are made rarely and have very little significance in energy use.

The second group, *small wrong decisions* is formed by decisions that are made frequently and usually affect our energy use only a little. They are important only if people feel that the decisions are central to the issue they are aware of. Quite often these small decisions are named as important in energy saving: turning off the light or avoiding plastic bags. Enforcing the positive aspects of these little choices is important in creating subjectivity in the energy issue. People need to feel that they have already taken the first step and are "with it".

The third group, *frequent wrong decisions*, such as buying a holiday flight yearly, are important for individual energy intensity, but also relatively easy to opt out from, at least in principle, and people can understand that they should not make these choices. They can be targeted with traditional educational campaigns, such as dos and dont's ads. However, it seems that if there is no alternatives in the market, choices are not significantly influenced by informational campaigns alone.

The fourth group, *big wrong decisions*, is the foundation of our lifestyle in terms of energy use. This is a group of choices that, once they are made, lock people into a certain level of energy consumption. From the individual's point of view, the biggest energy users in our everyday life (housing, transportation and food as diet) are neither often changeable, nor can they be intervened by simple informational campaigns once the initial decision has taken place. This gives us two reasons as to why this group requires special attention. Firstly, these decisions form our energy-lifestyle. Secondly, we need to look at the practices that surround these decisions.

Our approach is to target energy related decisions that are "once-or-twice-in-a-lifetime" decisions, which determine a substantial share of the everyday energy consumption of an individual.

Big energy-related decisions take place in varying conditions, are preceded by varying period of pondering and affected by numerous external, formal or informal authorities. Several studies argue that positive attitudes towards energy saving turn into action once suitable external conditions are present and these conditions include a combination of both information and incentives.<sup>xviii</sup> <sup>xix</sup> PRECEDE-PROCEED model by Green and Kreuter suggests that behavioural determinants belong to three categories: (1) predisposing factors, (2) enabling factors, and (3) reinforcing factors.<sup>xx</sup>

Considering what we know from the surveys on climate and energy attitudes in Finland people seem to be aware and concerned about energy-related societal problems.<sup>xxi</sup> That means that predisposing factors (knowledge, attitudes, norms) are – at least partially – conducive to a change towards low-energy lifestyle. Therefore it can be assumed that to further the change in behaviour – especially decisions that lock energy use for years to come – requires more attention to external or enabling. In other words, people need better practical tools (both information and incentives) for making successful low-energy decisions during the process of decision making.

Thus, the second stage of our study consists of outlining these conditions or factors: who are the authorities – communities, institutions, businesses, professionals, peers, individuals, experts – that people pay attention to and rely on in the process of making crucial personal energy-related decisions?

### *B. Relevant fields of life*

Statistics Finland and other official instances do not publish statistics of final energy consumption from the consumption perspective. Mäenpää has measured primary energy consumption of households.<sup>xxii</sup> The four biggest energy users besides electricity, gas and heating fuels are **housing**, private vehicles (**transportation**) and **food**. When assessing carbon emissions instead of mere energy consumption the significance of food

increases further. In addition to these three energy using categories, **consumer goods** and especially consumer electronics play an important role as their impact on immediate increase of electricity consumption has been notable.<sup>xxiii</sup>

Energy consumption and energy-related decisions are also dependent on time consumption. An average employed Finn consumes 4-5 hours per day both at **workplace** and for **free time**.<sup>xxiv</sup> Based on these facts we have decided to analyse energy relevant decisions in six fields of everyday life: **housing, transportation, food, consumer goods, workplace and free time** (figure 3).

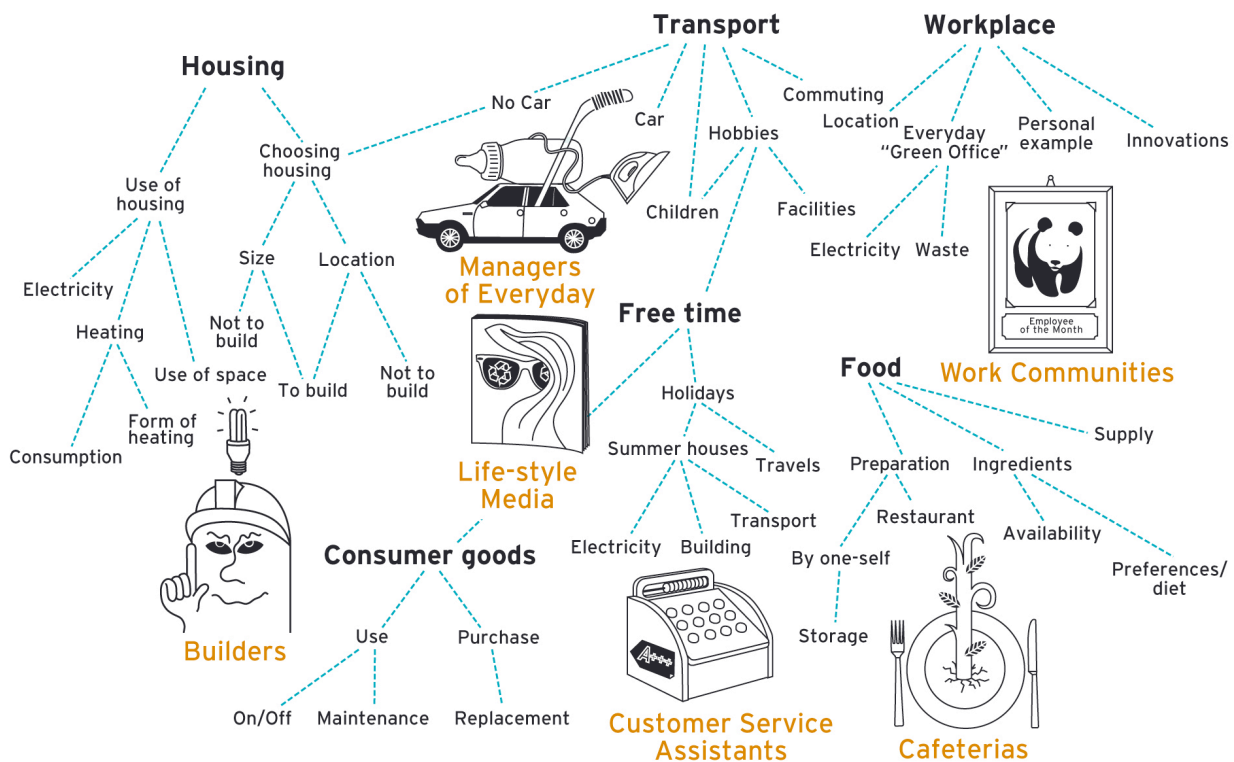
### III. GATEKEEPERS ARE PRESENT IN THE PROCESS OF DECISION

We call the authorities standing on the gates of the energy decisions *gatekeepers*. In many situations it is up to the knowledge, skills, motivation and activity of these gatekeepers whether individuals (and subsequently, their family members) can enter low-energy lifestyle.

We have looked for the gatekeepers by going by following the decision tree of energy consumption and by examining the big wrong decisions identified in the fourfold table (figure 2). For example, the decisions of where to live, having a car or not and choosing a diet emerge (figure 3).

## Decision Tree of Energy Consumption

Energy gatekeepers in the decision tree



**Figure 3.** Some energy gatekeepers in the decision tree: builders, managers of everyday, lifestyle media, work communities, customer service assistants and cafeterias.

The previous research has mainly considered legislators and green businesses as gatekeepers for energy consumption.<sup>xxv</sup> Usually this view is restricted: it only considers whether low-energy options have been developed, whether they are available or not and what is their cost relative to other, less energy-efficient ones. This approach tends to underestimate the complexity of the selling/purchasing process with its subtle factors leading to a decision. Starting from the consumer's point of view, the most evident gatekeepers are the people she meets face-to-face in a store while preparing for and on the verge of making a purchase. These people working in the "consumer interface" are the ones that often give the decisive impetus for "the final choice", they guide customers to consider certain alternatives or leave others out of consideration. It is clear that their active behaviour can increase the adoption of low-energy alternatives.

However, because both the interventions and research on consumers' energy-related behaviour have traditionally concentrated on direct energy use (heating, electricity, transport), many potential energy gatekeeper groups have been neglected.<sup>xxvi</sup> If we understand energy consumption consisting also of indirect sources related to production of consumer goods and services, we find several new actors who can be labelled as energy gatekeepers. Within this new frame we can see as gatekeepers people and organisations close to consumers that review, supply and affect the lifecycle of these goods and services.

By zooming into the big decisions in the decision tree, we have picked up six actors from the six significant fields of life: **customer service assistants** and **cafeteria staff** as relevant professionals, **builders, managers of everyday and lifestyle media** as mediators of public and peer opinion, and **work communities** as both.

When taking also the indirect energy consumption into consideration, many companies and their staff producing and selling ordinary (not eco labelled) goods and services become gatekeepers in addition to green businesses recognised in previous research. Their stock, its development and the way they promote the sales of different alternatives either guide to or block a customer from a low-energy solution.<sup>xxvii</sup> Thus, for example, people planning the daily lunch menus in cafeterias or sales assistants in hardware stores become crucial actors in shaping consumers' energy consumption.

In the contemporary consumer society characterised by the richness of alternatives individuals are constantly in need of expert advice. If we approach the process of making a decision from the perspective of a consumer, it seems fairly obvious that "public opinion" mediated by magazines and views by peer consumers stimulate the process and eventually shape the practice. Media are often responsible for offering narratives and symbolism to new forms of behaviour, especially consumption.<sup>xxviii</sup> In recent years, different forms of "peer-help" and "peer-production" have been widely discussed and claims have been that their power over individual behaviour, especially over purchasing decisions has grown.<sup>xxix xxx</sup> One explanation to this change has been the "democratisation" of the production of media content enabled by social media tools. Individuals and thus their peers have almost infinite number of roles and needs. On the Internet forum of a family magazine, managers of everyday, that is those in charge of running everyday life of the family, discuss the vegetarian diet of small children. On home builders website information on the pros and cons of different heating systems is exchanged. Nowadays the information in these peer networks is often more developed than the professionals in stores and offices can offer. But also professionals close to the consumer can be taken as peers and their view is valued as peer advice. Also traditional journalist media offer sense of "peerness" in form of personification of issues (profiles, reviews by amateurs etc.).

The role of gatekeepers is essentially to either enable or deny access to low-energy behaviour. This is what peers and professionals close to the

consumer do as regards to energy-related practices: they re-focus the scope of alternatives the consumer has available and takes into consideration, they attract attention to certain options and give testimonials either for or against. In this process examples and arguments are created that are pivotal for the replication and spreading of a new practice and establishing a more sustainable behaviour.

#### IV. CONCLUSIONS AND DISCUSSION

This paper aimed to offer an answer to the question of how people's strong positive attitudes towards climate change and energy saving can be turned into wider low-energy lifestyles. We have identified big wrong decisions that lead individuals into a particular energy consuming lifestyle for years ahead. We have further examined the most energy-relevant choices and discovered that these decisions are surrounded by groups of people and organisations who define the possible choices in the first place.

This paper is merely an exercise of the idea that large reductions in energy consumption can be realised by targeting new, multiple gatekeeper groups. These groups are reliable yet peer level experts: customer service assistants, lifestyle media and fellow customers. For wider understanding of gatekeeper groups, there is a need for further study and data collection.

Firstly, there are shortcomings in statistical data regarding energy end use from the point of view of the individual consumer. These gaps exist especially in measuring the indirect consumption of energy.

Secondly, there is need for further mapping of who the gatekeepers are for different groups of people. The gatekeepers are likely to be different according to various factors such as location of the groups, their social status and other cultural definers.

Thirdly, there is a need for deepening the understanding of how the most energy relevant decisions are embedded into the everyday practices. This includes questions such as what triggers our decision process, what kind of factors (informa-

tion, examples, arguments, visible objects) stimulate the consideration of different alternatives and what we take into consideration when making the decision.

Fourthly, the question of how to best activate the gatekeepers requires special attention since at the moment many of the gatekeeper groups do not consider themselves energy actors at all and the background of the groups is diverse. The gatekeepers are essentially not a clearly defined group as they are qualified by something that is largely varied: the energy-intensity of their work from a consumer perspective. When wanting to enable consumers to execute truly effective energy saving, it is central to empower gatekeepers to understand their role as important actors in the field of energy consumption and thereby to guide consumers to make the best choices.

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