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Understanding and addressing the client's needs: how can we frame energy efficiency?

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Abstract

Insights from behavioural economics show that decision-making is not only 'boundedly rational' but constantly biased. This also applies to industrial energy efficiency investment decision processes and has fundamental implications for the design of policy instruments but also of energy efficiency business models. Starting with a short analysis of the "orthodox" perception of barriers to energy efficiency investments, this papers then looks into the more recent insight on decision making processes from behavioural economics and asks which implications these have for the "framing" of energy efficiency solutions by their providers. We conclude that suppliers of energy efficiency products and services are confronted with the challenge to better "frame" their offers in accordance with the customer's way of treating information and taking investment decisions. To handle this challenge, they need to understand the customer's "Unique Buying Reason", coherently communicate on quality and scope of their products and services and cooperate with other market actors. In the last part of the paper we ask, which supporting policies could help the market to successfully complete this challenge.

Introduction

There is a vast potential for energy efficiency improvements in all sectors of the society. The knowledge about this opportunity has grown and been acknowledged by influential institutions over the years. While earlier investigations reported marginal changes possible and were rather aiming for a "trimming" of the systems many studies today identify a potential for double-digit percentage savings. Secondly, present studies acknowledge that these potentials often have negative costs since the exploitation would actually return profits.

Examples of today's institutional acceptance of the huge potentials are e.g. the EU's policy of a target to achieve 20 % reduction in energy use by 2020 while maintaining service and performance. The key message is that it is possible to do more with less. Another example would be the IEA World Energy Outlook 2012 where a scenario of an "energy efficient world" is explored in some detail. In this scenario it is shown that just making use of the cost-efficient opportunities should both (almost) achieve the energy-use levels required for staying within the 2-degrees C level in climate warming, and also improve essential targets in spreading energy services and help alleviate poverty.

It is however strange to note that in spite of the huge potentials being identified and highlighted to be the best choice both for individuals and the society, so little is actually done. If all decisions were truly economically rational, these potentials should have already been achieved. They are the "free lunch that you are paid to eat" as was stated in earlier visionary studies (von Weizsäcker et al. 1998, p 38) that established institutions used to dismiss. This so called "energy efficiency gap" has been the subject of several studies which analysed the reasons why profitable energy efficiency investments are not undertaken, identified a variety of barriers and made recommendations on policy instruments to close the gap. However, despite some progress made energy efficiency is still not a priority on political agendas. Further, most policies are designed with the as-

sumption that once the barriers have been removed, the market will act rationally. The burden of proof whether to undertake efficiency measures is put entirely on the customers and less attention is paid on how the offers are presented, framed and understood.

The technology for the transformation to greater energy efficiency is generally not difficult. It is about light sources, insulation, motors, etc. Such equipment is well known with defined characteristics that can easily be measured and computed. To choose the right combination, to make changes at the right time, to support different skills and find the right tradespeople that can install the right installation or to change it according to shifts in circumstances over the life-time of a business is trickier. This implies trying to find an economically and socially sustainable optimal solution that may change depending on individual circumstances, barriers and needs. That makes energy efficiency as a package complicated – in particular, to the layman!

Against this background, this paper takes insight from behavioural economics which show that decision making is far from rational and argues that this needs to be incorporated into the design of business models and supporting policies. The key challenge is to understand how decisions are made by users (customers) and that they are not truly economically rational in the sense of textbooks but rather human and need facts and offers presented in a way that corresponds to their way of thinking and which they can handle (Thaler and Sunstein 2008).

ENERGY EFFICIENCY MAY BE A NON-ISSUE

If the customer does not buy "energy efficiency", even if it would be economically rational to do so, it is in the thinking of mainstream economics because he has preferences that do not favour energy efficiency and while being aware of his options he opts against an energy efficient solution. The problem on the market might however not only be an issue about how the customer is approached and incentivised to accept or reject an offer to undertake energy efficiency measures. It might be more severe. Energy efficiency may be a non-issue and therefore – from the customer's perspective – does not merit any consideration at all (Cooremans 2007).

Energy policies and business models however very seldom focus on the fact that the buyer may need better offers to be able to exercise his preferences for energy efficiency as a concept. The supply of energy efficiency therefore remains fragmented. The UK Green Deal policy, however, is one good example where energy efficiency is packaged and delivered together with financing and provided by certified persons and companies.

There is a dire need for policies and business models that go beyond the simple assumption that the customer is a homo economicus and also take into account that energy efficiency is not even on the radar-screen of many customers.

RESULT = POTENTIAL * ACCEPTANCE

The potential is big and manifested. However, the problem is that the customer acceptance to undertake the measures suggested and needed is too small. Multiply a big number with zero still returns zero. So the real question is why the acceptance is low and what can be done to raise the acceptance.

The barriers that prevent the uptake on the market have been identified and analysed in a multitude of models. We will not discuss these in any detail here but just mention a few of the barrier categories (according to Gillingham et al. 2009) in order to ask how relevant they are and which measures are normally taken to overcome these barriers:

- *Energy market failures* are such that they prevent the true marginal costs to be reflected in the energy price and thus be taken into consideration in the user's decision making process. A certain demand responsiveness to energy price development provided, the solution should be to manipulate prices by internalising external costs, have real-time pricing that reflects the fuel used in actual time or to introduce taxes.
- *Capital market failures* imply that individuals do not have access to finance to undertake the measures needed. This is normally tried to be cured with loan programmes.
- *Innovation market failures* are related to the fact that several measures (technologies), when in their infancy, are too expensive but that costs can drop dramatically as a consequence of "learning-by-doing". Financial support for early adoption such as has happened with the feed-in tariffs for renewable electricity can help.
- *Information failures* are of many sorts from asymmetric information, when not all actors concerned have the knowledge needed, to principal agent failures when only one actor has the economic advantage of acting and the incentive is split. The suggested measure is to find ways to make information more accessible and understandable, and to increase demand for information.

Considering how much there has been written about these barriers, their nature and possible solutions there are two observations to be made.

- The first observation is that there has been an amazing amount of policy interventions which are trying to address the above mentioned market failures over the years since the first oil-crisis some 40 years ago. These policy interventions mainly focus on the removal of individual market barriers to rational behaviour with the assumption that once these barriers have been removed, organisations will act rationally.
- The second observation is that the acceptance of energy efficiency measures is however still frightfully low in light of the size of the potential. They just do not match.

These observations imply that the exclusive focus on the above mentioned market failures is not enough and that the energy efficiency paradox will not be removed by only increasing prices, reducing costs and improving information for the end user.

Barrier or Bias?

More recent studies do not only look at the market failures and have a different explanation to why obviously rational decisions are not made and profitable measures not undertaken. These are based on studies in psychology and in particular look at how decisions are biased and rather based on rules of thumb than on actual calculations. We are biased in our thinking mostly because of earlier experiences and fundamental emotions (e.g. Kahneman 2011).

Such explanations are gradually gaining terrain also among more traditional economists (e.g. Gillingham) though with lots of caution about the lack of empirical material. There are attempts to make distinctions about "behavioural failures" which are still based on rationality but hampered since the customer (the agent) is bounded in his rationality. Such explanations do not seem to be sufficient since they still do not address the psychological biases of the customers.

Richard Thaler and Cass Sunstein argue that the economically rational man is a creature that only lives in textbooks. Such a person, they say, would have to be equipped with the calculation ability of Albert Einstein, a memory of a mainframe computer and the willpower of Mahatma Gandhi. They call such persons Econs. The rest of us, who are less gifted, they call Humans (Thaler and Sunstein. 2008). If the rational persons, for which we design policies to overcome their barriers to make rational decisions, do not exist then we may have to redesign the policies and measures to fit real people and their (dis-)abilities.

In his book "Thinking fast and slow" Nobel Prize laureate Daniel Kahneman explains that we have two systems to approach a problem. One fast, intuitive and emotional and one slow, deliberative and logical. The fast system "operates automatically and quickly, with little or no effort". The slow system "allocates attention to the effortful mental activities that demand it, including complex computations." In giving examples of what the systems do Kahneman says that the slow system is required i.e. to "compare two washing machines for overall value". The fast system generates suggestions for the slow system and if the slow system endorses the suggestions "intuition turns into belief and impulses turn into voluntary actions" (Kahneman. 2011. p. 24). It is about pattern recognition. The fast system however "has biases, systematic errors that it is prone to make under specific circumstances. It has "little understanding of logic and statistics" (Kahneman. 2011. p. 25).

More recent research in behavioural economics has also shown that people have severe tunnelling effects when facing an economic decision. In particular such tunnelling occurs when people are facing economic limitations in general and does not pertain to the actual decision. Economic worries tend to spill over (Mullainathan and Shafir 2013).

These general observations also apply to industry customers who are biased in their energy efficiency investment decision processes by several internal organisational factors such as energy culture, power relationships, managers' interests and mindsets and the characteristics and the strategic relevance of the investment itself. Financial considerations alone do not explain sufficiently why energy efficiency investments are not undertaken (Cooremans 2011). Even when capital market and information failures are attempted to be eliminated through information and loan programmes, the willingness to invest might still be very low because information is inadequately framed or not credible. Further, behavioural economics show, that factors such as loss or risk aversion can substantially influence investment decisions and cause organizations to favour the status quo and to neglect potential improvements in energy efficiency. This is of particular relevance as energy "savings" are normally framed as "gains" and not as "avoided losses" (Sorrell et al. 2011).

Even if our minds get the right signals and incentives we may decode them in a biased way and avoid doing the (rational) right thing anyway.

FRAMING THE OFFERS AND REMEMBERING THE CUSTOMER IS A HUMAN

The preceding observations have implications for the design of policy frameworks for energy efficiency but, no less important, they have clear implications for the providers of energy efficiency solutions. If not financial considerations alone influence the customer's energy efficiency investment decision, other factors need to be taken into account in marketing strategies and the design of solutions. Three dimension need particular attention:

- In most companies, energy efficiency has no strategic relevance and there is no link to the core business so that even profitable investments are not taken (Cooremans 2011). Consequently, there is a need to communicate on the multiple benefits of energy efficiency, including the non-energy benefits, create a bridge between strategic management goals and energy efficiency and understand the customer's "Unique Buying Reason".
- Imperfect or asymmetric information is a key factor in the orthodox understanding of market failures. However, this barrier needs more attention as it is more complex than it appears at first sight. Capability to understand and take in information is limited and available information is not always treated and interpreted in the same way. Further, information needs to be credible and well-presented depending on the recipient (Sorrell et al. 2011). This has particular relevance when the customer has to assess the quality and the suitability of a service in a market with low transparency, such as the energy efficiency services market.
- Often the customer is not looking for a specific product but for a quality (such as a certain temperature level). This might require combining different products or services from different providers. As time, attention and know-how is limited, finding the right combination which suits his individual requirements is a challenge which the customer alone can often not handle.

Based on these dimensions there are three questions which providers of energy efficiency services and products need to ask, when designing their business models and marketing strategies:

- How do we argue for our products or services?
- How do we shape and distinguish our products or services?
- With whom do we offer our products or services?

Arguing for energy efficiency products and services: finding out the customer's UBR

Arguing for energy efficiency is arguing for "improving decisions about health, wealth and happiness" which is the subtitle to the book "Nudge" (Thaler and Sunstein. 2008). In their work they recapitulate the basics of behavioural economics and the risks for hasty and biased decisions and lands in a concept they

call "choice architecture". Prospects should be framed in a way that enables an educated choice and avoids making unnecessary (stupid?) mistakes unless we wilfully want to do so. They call it "libertarian paternalism" and a way "to influence choices in a way that will make choosers better off, as judged by themselves".

The traditional model for marketing and selling has been to define the Unique Selling Proposition, or USP, to the customer. USP is a: "real or perceived benefit of a good or service that differentiates it from the competing brands and gives its buyer a logical reason to prefer it over other brands. USP is often a critical component of a promotional theme around which an advertising campaign is built. […] Where the top-down [USP] approach gives power to the producer to literally flood the market with its merchandise and over exemplify the positives of its product, the bottom-up [UBR] approach encourages the producer to understand the benefits of the product for its consumers and build a relationship with its consumers." (Zaidi 2012.)

Lately there has been more emphasis on UBR, the Unique Buying Reason, i.e. the customer's perspective. A unique buying reason is a logical evolution from USP. For energy efficiency the change often brings more positive attributes to the user than lower energy bills only, we call them Non-Energy Benefits, NEBs. Those can be substantial and even overwhelm the energy-related profits in the calculation. But nevertheless NEBs are seldom accounted for (Willoughby et al. 2011; Ryan and Campbell, IEA 2012).

It seems reasonable that if it is difficult to approach the users and get their attention for the message that energy efficiency gives them economic benefit, which is a pure USP message, it would be more sensible to turn to the UBR. Trying to find out what there is on the customer's mind that can be packaged and delivered with our product – energy efficiency. So if the economic benefit alone (i.e. the cost reductions associated with energy efficiency investments) does not convince the client, because for most (non-energy intensive companies) it is not sufficient to make energy efficiency investment strategic enough to take priority over investments in the core business – what else is needed to convince a client to invest in energy efficiency?

Besides cost and risk reduction Cooremans (2011) points to the importance of "value" as a source of competitive advantage. What she names "value" comprises many of the above mentioned "Non-energy benefits". In industry this may be improvements in product quality, reductions in resource use, pollution and maintenance needs and improved production and capacity utilisation (Ryan and Campbell, IEA 2012).

If these co-benefits are not taken into account, energy efficiency investments are often only "incidental consequences of facility improvements" (Russell and Young 2012). To analyse the corporate decision-making process for energy efficiency investments Russell and Young (2012) interviewed 30 individuals from different companies. About one third of the respondents said that energy improvement opportunities would be largely dismissed were they not linked to equipment replacement episodes. As energy efficiency investments are often considered as "an item of discretionary maintenance" they are considered as costs and not as investment in productive capacity and therefore an asset. This becomes apparent by the fact that most companies evaluated energy efficiency investments according to their payback-time (rather than their net present value (NPV) or internal rate of return (IRR)) which is not based on profitability considerations but on risk (CSE/ECI 2012).

On a macro-economic level, when calculating economic energy efficiency potentials for industry, generally, modellers assume that the diffusion of technologies is linked to the standard turnover-rates. This implies that energy efficiency investments are evaluated taking into account the differential costs as compared to a standard technology. The co-benefit of energy efficiency technologies is not taken into account (see e.g. Schlomann et al. 2011, Fleiter 2011). Worrell et al. (2003) give examples how productivity benefits are incorporated on project level and propose a method to also include these benefits in the economic assessment of the potential for energy efficiency improvement on macro-economic level.

Cooremans (2011) translates these non-energy benefits to her model of competitive advantage and concludes that the analysis of these benefits increase the strategic character of an investment by increasing value, reduce costs and reducing risks. A similar conclusion has been taken by Pye and McKane (1999) who state that highlighting the strategic character of energy efficiency investments (by accounting for all the benefits) reduces the risk associated with the investments and in consequence the payback periods required. Cooremans (2011) recommends: "Energy service companies should also switch from a financial perspective to a strategic perspective."

This is also taken up by Leutgöb et al. (2011) in their "energy efficiency service development guide" which has been set up in

Table 1. Non-energy benefits from efficiency improvements (Worrell et al. 2003).

Waste	Emissions	Operation and maintenance
Use of waste fuels, heat, gas	Reduced dust emissions	Reduced need for engineering controls
Reduce product waste	Reduced CO, CO_2, NO_x, SO_x emissions	Lowered cooling requirements
Reduce waste water		Increased facility reliability
Reduce hazardous waste		Reduced wear and tear on equipment/machinery
Materials reduction		Reductions in labor requirements
Production	**Working environment**	**Other**
Increased product output/ yields	Reduced need for personal protective equipment	Decreased liability
Improved equipment performance	Improved lighting	Improved public image
Shorter process cycle times	Reduced noise levels	Delaying or Reducing capital expenditures
Improved product quality/purity	Improved temperature control	Additional space
Increased reliability in production	Improved air quality	Improved worker moral

the context of the European project ChangeBest: Highlighting the value of the service (i.e. better management of technical processes, guarantees on technical performance) rather than the cost reductions only, tend to be a promising strategy to differentiate the energy efficiency service in the emerging market. This is particularly valid as the alternative for the customer might be to realise the energy efficiency analysis or measures on his own.

Shaping energy efficiency offers: increasing transparency on quality and scope

Shaping offers is of particular importance when it comes to energy efficiency services, such as energy analysis and advisory services or energy contracting offers. Services are classical experience or credence goods where the consumers can only determine quality and characteristics after purchase or even after they have begun consumption. This leads to a lack of trust and information asymmetry between both market actors (Sorrell et al. 2011).

This general difficulty also applies to the energy efficiency services market which is characterized by a huge variety of "service products" and correspondingly a very diverse landscape of different providers. Their services may cover parts or the whole "energy efficiency services value chain" (from information over planning to implementation) they vary in scope (from simple energy audits to individual energy management services) and duration (from one-time audits to long term service contracts) but also in quality.

The customer might be confronted with a set of different providers which all seem to offer the same type of service but within a wide range of costs which suggests that they offer a different quality or version of the same product (Bunse et al. 2010). Consequently, differentiating between the different types of energy services and judging whether the service provider is sufficiently qualified to render the service may become a longsome task from the customer point of view. This has been confirmed by a recent study on the German energy efficiency services market which revealed as important barriers for the development of the energy consulting market the reluctance of the client to sufficiently pay for the advisory services and the lack of transparency for the client on different advisory forms (Seefeldt et al. 2013). For the industry segment in particular, this problem is tightened as industry customers with very individual production sites and processes have very individual requirements and the optimization of their processes demands specialized knowledge.

For the market a lack of transparency can have very negative implications. As customers are not able to distinguish between high quality and low quality services and between the different product types they risk choosing the "wrong" one which is either of low quality or does not suit their needs. With these negative experiences, they might turn away from the idea to engage a service provider.

For service providers this means that in order to create a quality competition in the market they need to create transparency as to their qualifications (e.g. educational background, project references) but also need to clearly define what they offer when they use a certain labelling (e.g. "energy audit") for their products. However, taking into account insights from behavioural economics, this needs to be done carefully, considering how industrial customers search for information (where would they normally look for information on providers of energy audits?), which person in a company they are addressing (e.g. management or technical staff), how the recipient treats this information (which information is relevant and what proves to them that they are engaging a high quality provider?) and which sources of information he trusts (e.g. peers, official databases).

Reducing complexity: Creating alliances

Energy efficiency technology is not per se difficult. However, often the customer is not looking for a specific product, but for a quality such as thermal comfort or a certain temperature level needed in a production process. This "quality" can be achieved by using more fuel or by improving energy efficiency of the process. However, "delivering the same service through energy efficiency investment requires the purchase of one or more complex, heterogeneous and unfamiliar goods from markets with multiple suppliers and intermediaries" (Sorrell et al. 2011).

Market analysis provides evidence that clients are looking for integrated solutions, i.e. a "one-stop-shop" or a "single point of contact". This market need is taken up in energy contracting models which often cover the entire project lifecycle (i.e. analysis, planning, installation/ construction, operation and maintenance, measurement and verification). However, only the few big market players are able to offer such integrated services (ChangeBest 2012). Thus, smaller providers, who do not have the capacities to train their own staff accordingly, need to look out for partners if they want to compete and offer more than only a single element in a whole energy efficiency service value chain. Cooperation with other market actors may improve the quality of the service offered (e.g. through enhanced know-how) and allows advancing the customer not only with an integrated solution but maybe also via a partner who has a closer relation to the end user.

This may for example apply to manufacturers of energy efficiency products who discover that the client does not only look for the product on its own but for a whole service attached to it or for energy companies who need to fulfil energy efficiency obligations and therefore cooperate with installers or ESCOs.

Cooperation can take place along the value chain with each provider contributing one element and one ideally acting as project manager. Such cooperation can take place between energy service providers (ESCOs), energy companies, facility managers, industry energy consultants, equipment manufacturers and installers. However, cooperation partners need to be carefully chosen and conditions need to be well-designed for both partners. Successful examples for such cooperation models in the energy services market have been provided in the project ChangeBest (ChangeBest 2012).

A very specific alliance takes place when so called "facilitators" who consult on behalf of the client, serve as intermediaries between clients and ESCOs and support the client in the complex project development and procurement phase. The costs of this supplementary service may be borne by the client or the best bidder ESCO (Bleyl et al. 2013).

Public funding for facilitators is currently taken into consideration in Germany. In November 2013, the German ministry for economics presented a draft proposal for a funding programme to support project developers for energy (savings) contracting. The programme aims at creating an incentive for clients (municipalities or SMEs) to engage a project developer

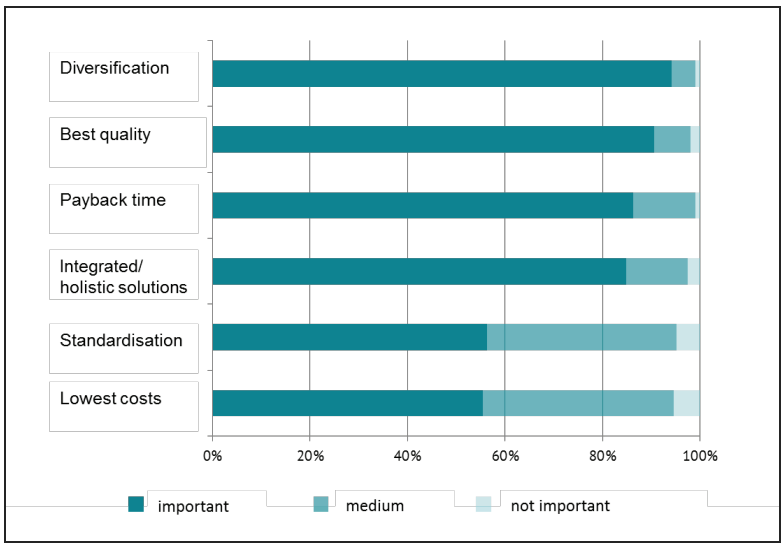

Figure 1. Success factors of products and services on the energy efficiency market (DENEFF energy efficiency market survey 2013).

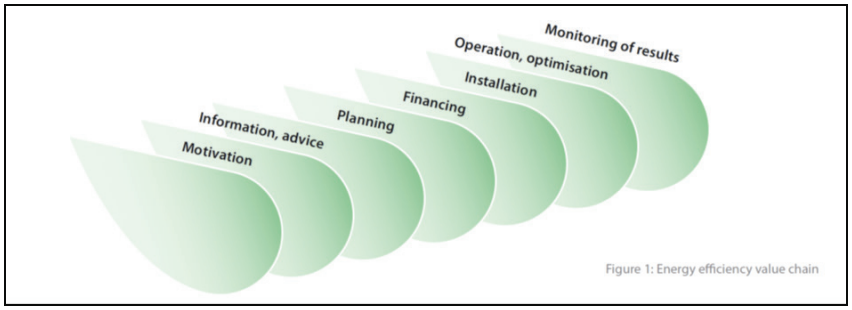

Figure 2. Energy efficiency value chain (ChangeBest 2012).

in the early project development phase (first technical and financial analysis, comparison of the different options: in-house implementation, energy performance contracting, energy supply contracting) and the later procurement and contract design phase (BMWi 2013).

NUDGING THE MARKET

There is evidence that clients need better offers than they generally get. They need something that pushes them or indicates to them the proper/better solution, a nudge. A nudge is something that puts the actors on the road towards energy efficiency and enables clients to understand the product, the services and the consequences.

The crucial issue is then, will the market develop naturally to deliver energy efficiency in a way that suits the clients and their abilities or is there a case for government regulation? Or is there even a middle ground: "Can the government somehow induce firms to nudge effectively […] because firms may have nudges available that the government has not."? (Congdon et al. 2011.)

The new Energy Efficiency Directive (2012/27/EU) has several articles that pertain to such government regulation or "nudging". Article 7 for example obliges Member States to set up an energy efficiency obligation scheme in which energy distributors and/or retail energy sales companies achieve end-use energy savings among final customers (As an alternative Member States may opt to take other policy measures to achieve energy savings among final customers). Energy savings obligations have proven to stimulate the development of energy efficiency services markets as obligated parties generally cooperate with energy service providers or other third parties (Bürger et al. 2012).

The design of these schemes can vary widely up to the extent that the responsible market agent is freely tendered. The responsible market agent who won the tender invites public tenders itself in which many different market agents can participate. The aim is always to find the most cost-effective kilowatt-hour saved and to harness the creativity of the market through direct competition (The CO-Firm 2012). The idea of an obligated party thus responds to the above mentioned need to create alliances and to design well-shaped products.

The obligation for bigger companies to undertake energy audits or to implement energy management systems (Article 8) can also be seen as an attempt to nudge the market: It increases demand for energy audits and in parallel Member States are required to establish minimum criteria for these audits with the intention to ensure their quality. Providers of such audits are thus obliged to adapt their offer to the new requirements and to shape their products consistently. Ideally, the client gets a better idea of what he is buying. The requirements set up in Article 18 of the directive go in a similar direction (encourage the development of quality labels, publish a list of available and qualified and/or certified energy service providers and enable

independent market intermediaries to play a role in stimulating market development).

It is then obvious that the EU has a clear view of the need to facilitate the development of a market that provides energy efficiency and commoditation of the more complex "negawatthour". It is however too early to tell how Member States will implement these requirements and what this will imply in terms of product standard and saturation on the market.

One application in Sweden has been the "programme for energy efficiency (PFE)" in energy intensive industries. Participating companies have received (small) tax credits in return for installing energy management systems and agreed to undertake suggested energy efficiency measures. The programme has in particular been implanted in paper- and pulp-industries with good success (Stenqvist 2013).

A similar system has been set up in Germany where energy intensive industries which benefit from energy tax reductions are required to set up certified energy management systems (according to DIN EN ISO 50001) or to undertake energy audits according to DIN EN 16247-1 or alternative common standards defined in regulation. In both cases the regulator creates a market for these standardised systems and thus obliges companies not only to analyse their energy performance but also to apply a pre-defined standard.

Conclusion

Absent progress in energy efficiency, the world today would either have had to use substantially more energy to maintain present standards or would have had to face a lower standard of living. Still, it is well documented that we could have done even better if we had managed to reap the full potential for cost-efficient energy efficiency improvements. The need for getting a higher acceptance for these improvements is mounting and if we manage to find a way it would even help a good way to avoid the climate crisis. The bad news is that we have not yet found the trick and the good news is that when we do, it will help environment, economy and jobs.

The problem is that the market is mostly relying on that the users of energy act completely rational in their decisions or at least respond to the attempts to alleviate market failures. Solution providers are not sufficiently aware that the customer makes biased and often totally irrational decisions which are hampering the development. The business-models are often inadequate and the policies to remedy these are not sufficiently developed. Providers still mostly argue with the return on energy efficiency investments and energy cost reductions. This is not wrong, but not sufficient either. They need to frame the propositions to the customers to better help them realize their opportunities. Successfully framing energy efficiency means (1) not only talking about costs and energy savings but argue with non-energy benefits and create a bridge between strategic management goals and energy efficiency investments. This also implies framing energy efficiency as avoided losses and using NPV and not only payback time to evaluate the value of the investment (2) clearly shaping products and services and creating transparency on product characteristics and quality, so that quality competition in the market can develop and the customer is able to distinguish a suitable product or service (3) creating alliances with other suppliers to be able to offer the client a holistic package which suits his individual needs and reduce complexity and transaction costs for the customer.

Realising this task demands creativity and innovation within the market when it comes to business models, selling strategies and choice of market partners but also a suitable policy framework which allows the market to develop and sets up supportive structures. There are some promising examples of initiatives coming from both the market and policies that point in the right direction – the European Energy Efficiency Directive is for example on the right track. We only need to replicate them and make them breed.

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