Branding Energy Efficiency

Branding a product or service creates a “pull” in the market, which in turn creates opportunities for wide scale deployment of the product/service. Historically, the sales pitch for any energy efficient product or service has been some modified cliché of ‘Save Money – Save the Planet’. It appears that consumers’ preferred choices of energy application products are largely motivated by factors such as brand, design, noise level and product price rather than energy efficiency – almost to the exclusion of the energy consumption aspect. Energy efficiency (EE) has not really been associated with a lifestyle. Since EE has a significant positive economic impact, the poor performance in getting people to embrace EE as a lifestyle is significant.

IEA DSM Task 20: Branding of Energy Efficiency has built upon the achievements of IEA DSM Task 7: Market Transformation, which took the initial step in developing a framework for market transformation, a comprehensive framework that could be used by government and industry to develop the market for energy efficient products. DSM Task 20 was initiated to study the barriers to branding EE, identify successful branding exercises across the globe and explore avenues available for national governments to promote EE branding. The Task was proposed with the belief that successful branding could reverse the fortunes of energy efficient products and services and would increase the visibility and credibility of energy efficient products and services.

continued on page 2

Note

FROM THE CHAIRMAN

Our global society is by default becoming multicultural, and this development makes us richer in many ways. By accepting our mutual dependence, we become richer by trading across the globe, but also richer by experiencing new and different ways of thinking. Hopefully, this multicultural evolution will also make us better people!

This change also impacts this Programme since by its structure is a global meeting place. But it is also to a growing extent a means for combining the knowledge and skills of experts in different professions, such as technology, economics and social sciences. Bringing these groups together means mixing mind-sets with their own models, attitudes, abbreviations and axioms.

To give some examples:
- An engineer may have a hard time understanding why the technical solution isn’t accepted in spite of the brilliant accompanying manual.
- An economist may not understand why people would

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Branding Energy Efficiency

The Work

The project began with Internet based research of successful efforts to brand energy efficiency. To ensure consistency in the selection of different case studies, a quick check questionnaire was administered to identify successful branding efforts for EE in different countries.

Detailed case studies were then developed to cover four avenues for branding – Program, Products, Services and Companies. These four avenues are useful for exploring relationships while developing branding strategies and suitable institutional structures.

Based on the comparative analysis of the case studies on various parameters, such as branding practices and their performance, key drivers and barriers for successful EE branding practices and the relevant learning needed to develop branding strategies for promoting EE were identified. The following branding aspects are recommended for consideration when developing strategies to promote energy efficiency.

Conclusions

Branding is designed to enhance consumer association with a product through the use of unique brand names, logos, symbols and other distinctive measures. Building an Energy Efficiency Brand utilising the skills and techniques from the marketing discipline will raise the profile of energy efficiency in the consumer’s mind.
Branding can be effectively used to promote energy efficiency. And, branding can address the information barrier about energy efficiency and incentivise the consumer to adopt energy efficiency in their day-to-day life. Branding also can work as a market transformation tool for large-scale deployment of energy efficiency.

When framing branding strategies, they should align with business development strategies and the type of consumer market. Governments also may adopt regulatory instruments for the promotion and adoption of EE in the country.

Effective branding strategies improve return on the investment in research and development by manufacturers and service providers thus making it possible for further investments in other efficient products. This could help them in becoming a pioneer in energy efficiency.

Labelling programmes are an effective instrument for influencing sustainable consumer choices. Studies of labelling programmes indicate that the sustainability effects of labelling schemes are growing across the globe, with heightened consumer interest in environmental and social issues. Labels can clarify for consumers the sustainability of a product across its life cycle and can draw consumers to purchase sustainable products and services.

Sustainability is a composite concept; it involves not only EE, but also environmental and social aspects over the long run. Branding strategies will need to focus on the sustainability aspects of the energy efficient products being offered, however, the impact of using sustainability concepts in branding is not known.

To Read More About The Results
Case Studies in Branding of Energy Efficiency. This report identifies and evaluates successful EE branding efforts in France, India, Spain and the United States as well as other countries.
Best Practices in Branding of Energy Efficiency. This report builds upon the baseline information, case studies and lessons learned in the first report to explore the best practices in branding of energy efficiency.

Both these reports can be downloaded from the DSM Task 20 web page here.

This article was contributed by the DSM Task 20 Operating Agents, Mr. Balawant Joshi, balawant.joshi@idaminfra.com and Rajiv Shukla, rajiv.shukla@idaminfra.com, Idam Infrastructure Advisory Private Limited, India.

WEBINAR
Taking Stock – 40 years of Industrial Energy Audits
December 10 @ 15h00 - 16h00 Central European Time

Industrial energy audits were among the first energy efficiency policy measures developed in response to the oil shocks of the 1970s. Since then they have become enormously popular in industrialised economies.

• In the EU they are mandatory for large organisations under the EU Energy Efficiency Directive.
• Developing countries are considering them as they scale up their own climate programmes.

But, from a policy-maker’s perspective,
Do they work?
How do they work?
How could they work for me?

Certainly, in principle, audits are extremely important because they get to the heart of how a company uses energy. But after 40 years, the scientific literature on audits is large and complex and difficult for the non-specialist policy-maker to wade though.

This webinar tells the story of audits in a way designed to cut through this complexity. It recounts the history of audits and sets out why they are important. It sets out some of the main features of successful audit programmes, and from the practical experience of the speaker, how to go about putting one together. It then considers the main problems with audits and how these can be addressed. Finally, the talk will look ahead to see how audits might evolve in the near future.

The DSM Programme has volumes of results, access to leading experts in the field, and a desire to share its knowledge and experiences with others. The DSM University serves as the platform to do this. This web-based learning tool is provided below by Leonardo Energy, an initiative of the Copper Alliance.

To register click here.
For the past two years, the DSM Programme has explored the potential risks and rewards associated with Smart Grids from the perspective of consumers. DSM Task 23: The Role of Customers in Delivering Effective Smart Grids drew together international experiences and identified best practices to ensure that the demand side becomes an integral component of a successful Smart Grid.

The owners and operators of electricity systems are facing significant challenges due to the unprecedented changes in the way that electricity is generated and the demands for electricity. These changes are driven by a variety of factors, but especially important is the focus on reducing carbon emissions and the move towards a low carbon economy. Generation mix is becoming increasingly characterised as one with a significant amount of renewable generation, which is less predictable and often less flexible than the large power stations more typical of current electricity systems. The move towards the de-carbonisation of end-use applications of energy, particularly heating and transport, is leading to the introduction of significant new electrical loads onto often already constrained networks. These effects combine to make the challenge of balancing the supply of demand for electricity increasingly challenging and complex.

No longer is it considered viable for electricity to be provided ‘on demand’ in reaction to the requirements of end-users. Rather, a co-ordinated approach is required whereby the actions of all energy producers and consumers (and those that do both) are integrated to ensure the use of renewables can be optimised, while also minimising the use of fossil fired generation and optimising the use of the existing networks. Such an approach is the essence of the Smart Grid Concept.

Although there is considerable focus on the technological aspects of delivering Smart Grids, little is understood of the extent to which consumers are willing and able to embrace new technologies and initiatives that lead to changes in the way that they consume electricity. Consequently, there is a risk that Smart Grids will not be able to achieve their full potential if consumers do not adopt new approaches to the way they consume electricity. Not enough is known about how Smart Grid initiatives should be designed in order to make it more likely that consumers are willing and able to actively engage with them.

Recognising this gap in knowledge, participants in IEA DSM Task 23: The Role of Customers in Delivering Effective Smart Grids have spent the last two years exploring Smart Grids from a consumer perspective. Specifically, the project examined how to ensure Smart Grids deliver energy efficiency and/or cost savings by enabling or stimulating certain energy behaviours.

In order to do this, the Task first had to define what is meant by energy behaviour. In general, ‘behaviour’ can be understood as any activity or decision described in terms of the following elements:

- the actor/decision maker who decides/acts/ performs the behaviour (in this context this is the consumer);

- a well-defined outcome or action (i.e., switching off lights, installing a heat pump, keeping a comfortable indoor temperature or washing clothes);
- a goal or object (in this context, this would be within the home or workplace);
- a point in time or a time period; and
- a specific context.

Based on this general concept of ‘behaviour’, the more specific concept of ‘energy behaviour’ can be defined as a behaviour that is concerned with the energy use of the relevant actor/decision maker. By considering energy behaviour in this way, it was possible for the Task participants to use a behavioural model to help explain the factors that influence the decision maker’s choice over whether or not, or how, to perform the behaviour. It is important to stress here that it is always the individual who makes the decision and performs the behaviour. This approach to energy behaviour is wide, ranging from specific one-off behaviours (such as investment decisions) to habitual daily routines (such as watching television and washing clothes, often referred to as energy practices).

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A number of models or frameworks of understanding exist and these have been used with varying success in an array of situations:

- Some focus on individuals, while others focus on the individual in his or her social environment.
- Some focus only on behaviour while others also focus on the context impacting that behaviour.
- Some focus on one-off behaviours while others focus on habitual behaviours.
- Some focus on discrete actions, others focus on a complex inter-related set of actions.

It was recognised that no single model or framework is considered to be ideal. They are considered to be necessary tools to assist decision makers implement policies, and to support practitioners as they implement technologies and initiatives to help achieve an outcome that depends upon behaviour change. Importantly, these models do not attempt to predict an outcome, that is how individuals will behave. Rather, they are used to provide a perspective on energy behaviour and the aspects that influence an individual’s decision of whether or not to perform a specific behaviour.

The fundamental academic debate – as indicated above – is whether this choice is best understood by studying characteristics of the decision maker (individualistic approach) or by studying the physical, social and political context within which the decision is made (system approach). Some energy behaviours may be best discussed within the individualistic approach, while others are best understood within the system approach. The starting point for DSM Task 23 was that valuable insights can be found within all of these approaches. Therefore, the model shown in Figure 1 was used to provide theoretical guidance for the research undertaken for this project.

The model shown in Figure 1 demonstrates that an individual’s behaviour is defined by their own attitudes, their own abilities and the social norms relevant to them. In addition, it is important to also take account of their context and the opportunities or barriers presented to them. Consequently, an initiative that is successful for one group of consumers may not necessarily be effective with another group of consumers in a similar context due to their differing views and beliefs. Likewise, what works for one group of consumers may not work for similar consumers in another context due to the opportunities and barriers that exist.

During this project, 23 case studies from around the world were used to explore consumer experiences with one or more Smart Grid related interventions. They provided valuable insights into the individualistic elements of the energy behavioural model presented in Figure 1.

The case studies selected included one or more of the following interventions:

- Any Tariff or pricing incentive to reward consumers that change their pattern of demand. This includes static Time of Use tariffs, Critical Peak Pricing, Peak Time Rebates and Real Time Pricing.
- Controls to actively manage demand, including direct/automatic load control, home/building energy management systems, smart thermostats.
- Feedback of energy end use information relying on data collected from the smart meter. Includes in-home displays, web based feedback, billing information and feedback via mobile devices such as phones and tablets.
- Advice to help consumers deliver outcomes that support the effective delivery of Smart Grids, including advice targeted to an individual or general advice distributed to groups.

The Task also reviewed the results of a number of surveys conducted to gauge customer attitudes to Smart Grid related interventions. The results of these surveys suggest that consumers’ views and opinions are wide ranging. Some consumers would be happy to participate in return for a financial reward, while a lack of trust in energy companies represents a major barrier to participation by others.

The lessons learned from the review of case studies and consumer surveys, together with an analysis of the factors that influence the decision making of individuals, were collated to provide general guidance on how Smart Grid initiatives should be designed to make them more attractive to consumers.

The guidance document is written in the form of ‘step-by-step’ approach to implementing Smart Grid related initiatives that involve energy behaviour change. The step-by-step approach, which is described in Table 1, has been designed to ensure that all elements of the energy behavioural model (shown in Figure 1) are addressed in the design of the Smart Grid initiative. The guidance is intended for:
• **Energy Suppliers, Distribution Network Operators and System Operators** who are the main stakeholders responsible for the development of Smart Grids, and thus stand to directly benefit from the engagement of consumers. However, there are many aspects of the design of Smart Grid initiatives that can be directly influenced by other industry stakeholders. These include:

• **Government and Energy Regulators** who are responsible for setting policy, legislation and the rules defining the way the energy market operates. There are a number of specific areas where they can directly influence the way Smart Grid initiatives evolve.

• **Third-party Aggregators**, who act as intermediaries between consumers and Smart Grid implementers. They have a pivotal role as facilitators, and co-ordinate between multiple Smart Grid implementers.

• **Energy Service Companies**, who help consumers manage their electricity consumption, and can design initiatives specifically to meet the needs of the consumers themselves.

• **Technology Developers/Appliance Manufacturers**, who develop technical solutions that meet the needs of Smart Grid implementers, third party aggregators, energy service companies and the consumers themselves.

The guidance focuses specifically on the design of Smart Grid initiatives from the perspective of the consumers themselves.

Figure 3 provides a high level overview of the step by step approach. If any one of the steps is omitted, there is a risk that the initiative will not deliver benefits to the energy system as a whole or will not be adopted by consumers or both. Table 1 on page 7 includes a brief description of each of these steps.

To learn more about the results of this work visit the Task 23 webpage. This article was contributed by Linda Hull of EA Technology and DSM Task 23 Operating Agent, linda.hull@eatechnology.com.

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1 Smaller businesses only within the scope of this document
3 Egmond, C., R. Bruel (2007) Nothing is as practical as a good theory. Analysis of theories and a tool for developing interventions to influence energy-related behaviour. Senter Novem, 16 September 2007
Table 1. High level overview of the step-by-step approach

<table>
<thead>
<tr>
<th>Step</th>
<th>Overview</th>
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<tbody>
<tr>
<td>Step 1. Understand the drivers</td>
<td>This Step examines how the drivers for Smart Grids influence the design of the initiative. Whilst the needs of the industry stakeholders represent the primary drivers for Smart Grids, this Section outlines why identifying the needs of consumers is also important.</td>
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<td></td>
<td>The Section demonstrates how understanding the interactions between market stakeholders, and the context within which the Smart Grid initiative must be designed, is an important first step in designing Smart Grid initiatives. This defines the external barriers and facilitators (opportunities) in the energy behavioural model introduced in Figure 1.</td>
</tr>
<tr>
<td>Step 2. Define Outcomes</td>
<td>This Step illustrates the elements of the Smart Grid over which it is envisaged that consumers will retain control. It represents the ‘behaviour’ element of the energy behavioural model introduced in Figure 1, i.e. the elements over which individuals can make decisions as to whether (or not) to perform an action. Specifically, it considers how energy behaviour change can help to achieve certain outcomes required by industry stakeholders.</td>
</tr>
<tr>
<td>Step 3. Target Consumers</td>
<td>This Step describes how to identify potential consumers who may be able to deliver the outcomes identified in Step 2. The starting point for identifying potential consumers is to consider whether the drivers for Smart Grids (see Step 1) and/or the required outcomes (see Step 2) are directly linked to a specific end use. If so, then it would seem sensible to first look to targeting consumers with those loads. This Step also introduces the concept of Customer Segmentation, which uses lifestyle factors, attitudes and motivations to define groups of consumers so that offerings can be designed specifically to meet the needs of a particular group.</td>
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<tr>
<td>Step 4. Design offering</td>
<td>This step describes the key factors that need to be taken into consideration when designing the Smart Grid initiative to ensure that consumers are willing to ‘sign-up’ to the initiative. This Section focuses on the following elements of the behavioural model introduced in Figure 1, and how they influence the intention to perform an action:</td>
</tr>
<tr>
<td></td>
<td>- Awareness</td>
</tr>
<tr>
<td></td>
<td>- Attitude</td>
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<tr>
<td>Step 5. On-going support</td>
<td>Step 5 examines how to go about ensuring that consumers stay signed up to the initiative and deliver the required outcomes. In addition to the Awareness, Attitude, Social Norms, and Self-efficacy elements of the model, this Step also considers how the positive and negative feedback that an individual experiences once they are ‘signed up’ influences the on-going intention to perform an action.</td>
</tr>
<tr>
<td>Step 6. Assess benefits</td>
<td>This Section of the document describes the potential benefits of Smart Grid initiatives for consumers, and also considers how the overall benefits are distributed amongst stakeholders.</td>
</tr>
<tr>
<td>Step 7. Monitor and Evaluate</td>
<td>In addition to measuring the impact on energy consumption, this Step explains the need to assess what elements of an initiative have been successful and for whom they have been successful.</td>
</tr>
<tr>
<td>Step 8. Implement</td>
<td>Once Steps 1 to 7 have been put in place, all that remains is then to put it all into practice.</td>
</tr>
</tbody>
</table>

(*) Extent of an individual’s belief in their own ability to complete a task or achieve a goal
An ESCo (Energy Service Company) is a company that offers energy management to clients by providing energy solutions, installing energy systems and formulating favourable financial constructions. ESCo services increasingly also offer interesting opportunities for organising and financing more sustainable property.

At the same time however, the demand for ESCo services appears to be hampered by a lack of awareness, knowledge and trust in the ESCos. ‘Facilitators’ (for example, energy agencies, knowledge centres, and consultancies) can intermediate between ESCos and (potential) clients to lower these barriers. As such they can help to realise the latent and apparent demand for ESCo services and contribute to achieving a more sustainable, low-energy and future-proof property.

The Co-Operating Agents of IEA DSM Task 24: Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice were asked by their colleagues participating in IEA DSM Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services) to provide some behavioural insight into how to increase uptake and use of ESCo services and contribute to achieving a more sustainable, low-energy and future-proof property.

The report is based on a review of the literature and 11 interviews with ESCo organisations, their clients and ESCo facilitators. It is broken into the following headline findings:

1. **If only the client knew...** Challenges were found to be due to lack of knowledge of ESCOs or misinformation of their services. The solution we offered was to inform and to simplify the information, using best practice stories and ambassadors and ensuring to connect and to offer a ‘real ESCo experience’.

2. **If only the client was willing or motivated...** Challenges were a lack of interest from the client, the (often overestimated) thought that their business was already operating at maximum energy efficiency and fear of how long it would take and how to mobilise the right sectors in an organisation. Our solutions were to tailor to the interests of clients, ensuring that a Facilitator understood their needs, which often go far beyond simple energy efficiency (for example, comfort, production efficiency, cost savings), to tailor to organisational strategies, clarify energy and cost savings, chose the right client, timing and location and to listen to, and communicate with all levels in an organisation.

3. **If only the client engaged with us and trusted us...** Lack of trust is one of the greatest challenges an ESCo or ESCo Facilitator face. Solutions are to use ambassadors, stories and best practice as trust building tools, to concentrate on listening and relationship building up front and to use individual projects as building blocks towards long-term trust. Monitoring of the ESCo’s performance, transparency, independency and partnering were other obvious solutions.

The roles and task of an ESCo Facilitator go way beyond simple technical knowledge. They also have to be a knowledge broker, bridge builder, intermediary, relationship expert and storyteller. We hope that our report helps a little bit in explaining what these roles need to entail. For any questions, please contact Dr Sea Rotmann at drsea@orcon.net.nz or Dr Ruth Mourik at ruth.mourik@duneworks.nl.
The DSM Programme is planning a 3-year continuation of its work on innovative energy services beginning in 2015. Task 16: Competitive Energy Services (Energy Contracting, ESCo Services) has successfully demonstrated innovative solutions and tangible contributions towards energy service market development in many countries. Yet a lot of work remains to be done to promote energy efficiency and respective services. Avoiding energy consumption by increasing end-use efficiency is a highly effective means to meet all three key targets of energy policies: security of supply, affordable costs of energy (services) and environmental soundness.

Performance-based energy service (ES), also referred to as Energy Contracting or ESCo service, is a proven ‘delivery mechanism’ for implementing energy efficiency measures for lighting, HVAC and building refurbishment as the ESCo takes over the technical and economical implementation risks and provides performance guarantees for the results. ES is also well suited for implementing renewable energy systems with guaranteed outputs.

The new phase of work will focus on:
1. Comprehensive refurbishment (Deep Retrofit, NZEB) through Energy Services (in cooperation with the IEA Energy in Buildings and Communities Programme), including:
   - Economic feasibility and opportunity cost
   - Investment grade calculation and financing (business cases)
   - Business models and how to factor in non-energy-benefits (NEB)
2. An energy services Taxonomy journal paper.
3. Demand response business models (continuing current work) + Demand response services and Vital Power Plants (market analyses, economic feasibility).
4. Knowledge transfer to emerging and developing markets: relevance, methodologies, lessons learned.
5. Financing: Crowd-financing, funds for EE and RES investments, for example:
   - Access to capital expenditure for smaller projects in SMEs and communities
   - How to bridge in particular the mezzanine financing gap

In addition, experts will continue their work on know-how and market development of ES by:
- Maintaining the well-established IEA DSM Energy Services Expert Platform for the ex-change and mutual support of experts, partners and invited guest.
- Supporting and following up on country specific national implementation activities (NIAs) in order to foster ESCo project and market development.
• Designing, elaborating on, and testing innovative energy and demand response services and financing models and publish them (Think Tank).
• Using the Task’s Energy Service Expert Platform as a competence centre for international and national dissemination and assistance services (e.g., coaching, training).
• Continuing to contribute to the activities of the DSM University.

The Task’s detailed work program will be adapted to suit the needs of the participating countries. And, National Implementation Activities (NIAs) will be defined for the specific country and market situations.

To learn more about this Task and how to participate, please contact Jan W. Bleyl of Energetic Solutions and the Operating Agent for DSM Task 16, EnergeticSolutions@email.de.

Why Participate?
National experts will...

• Have opportunities to exchange experiences and receive feedback and coaching for country specific market development activities (NIAs).
• Gain know-how and build capacity of innovative energy services and financing models from the Think Tank.
• Have the ability to ask the Task’s project manager (Operating Agent) to prepare information on Energy Contracting issues of interest.
• Participate in the IEA DSM Energy Services Expert Platform and communicating with external stakeholders.
• Play an active role in the national and international dissemination of innovative ES and offer assistance services for market development in other countries.
• Contribute to the IEA DSM University.

And last but not least, participants we help to enlarge the market for energy services and to develop business opportunities for nationally and internationally acting ESCOs and consultants.
Chairman’s Note from page 1

buy PV when there are more economical options available.

- A behavioural scientist may keep trying to change the way people act, even if a simple technology, such as a motion detector, could do the same trick. Once these professions start listening to each other exciting things will inevitably happen. The idea of using behavioural knowledge to speed up technology implementation of energy efficiency has become a part of the work of the DSM Programme.

Our energy efficiency research is the multicultural element of the IEA’s technology network. And as such it has, in some respects, to work harder. We are not satisfied with technological solutions unless we find a way to implement on a large scale. We are not impressed by technologies if people cannot or will not use them. And, we are not prepared to sit idly by if the solution we have is economically beneficial, but the market ignores it.

For the purist, be they engineers, economists or social scientists this “multicultural approach” can sometimes be a bit awkward, but for DSM research it is being acknowledged as “real” as the research areas in the rest of the IEA technology network. There are now links to and collaborations with other IEA Programmes, and our work is reflected in IEA publications and EU visons for the future.

After the first “flirtation” with multidisciplinary and multicultural work, the Programme has formalized this type of collaboration. And we are now reaping the benefits, energy efficiency by DSM is becoming more attractive to the market, our information and results are being used by others, and our Programme membership is growing.

So I can only conclude that although as a Programme we may have to walk the extra mile to achieve our multidisciplinary and multicultural work, it’s worth it.

Visit the DSM Programme’s website for easy access to reports, news and contact information.

www.ieadsm.org

The DSM Spotlight is published several times a year to keep readers abreast of recent results of the IEA Demand Side Management Programme and of related DSM issues. IEA DSM, also known as the IEA Implementing Agreement on Demand Side Management, functions within a framework created by the International Energy Agency (IEA). Views, findings and publications produced by IEA DSM do not necessarily represent the views or policies of the IEA Secretariat or of the IEA’s individual member countries.

For information on the Programme, its work and contact addresses, visit our website at www.ieadsm.org