ieadsm
energy efficiency

STRATEGIC PLAN

2014

The IEA Demand-Side Management
Energy Technology Initiative

Contents

Prepared by:
Anne Bengtson
Executive Secretary
IEA DSM ETI

STRATEGY OF THE DSM ENERGY TECHNOLOGY INITIATIVE 2014 – 2019

Introduction

Demand Side Management (DSM) refers to all changes that originate from the demand side of the market in order to achieve large-scale energy efficiency improvements by deployment and use of improved technologies and changes in end user behaviour or energy practices. Depending on market organisation in each country such changes involve different actors. In many cases the utilities play an active role.

Working on the demand side is more important than ever. Deployment of the technologies, diffusion of efficient products and changes in behaviour are key issues for success. There is a definite need to consider with whom and how to engage, in order to address more appropriately the stakeholders that can make a difference, be they governments, agencies, industry, end-users, utilities or NGOs.

The previous strategy (2008-2012) was centred on the achievements of DSM activities, i.e. the changes of load-shape and changes of load-levels. This new strategy (2014-2018) has its focus on the conditions for the achievements, i.e. (1) the planning required to target the huge potential and (2) the business-models to obtain the acceptance on the market. Both the components are needed for results.

Energy Efficiency is not difficult – it is only complicated.

The energy system should deliver services (light, heating, cooling and motive power) to the end users. The service requires two components;

- energy (kWh and GJ) and
- equipment/installations/machinery that transforms the energy to the useful service.[1]

The full cost for the service is the cost of these two components put together. To achieve cost effectiveness this combined cost should be minimized for the required amount of service.
The technology for the transformation is generally not difficult. It is about light sources, insulation, motors etc. Known pieces with defined characteristics the efficiencies of which are easily measured and computed. However, it also is about the difficult-to-measure energy behaviours. It is the combination of the pieces that makes it complex. 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 household or business. And to try to find an economically and socially sustainable optimal solution that may change depending on individual circumstances, barriers and needs. That makes it complicated!

Energy is delivered in a flow and the cost is calculated based upon the units of energy. The hardware is delivered in pieces at discrete occasions and the calculation of the cost requires a formula that equalises the cost and makes it comparable to that of the energy that was generated. This will necessitate judgment on a variety of issues such as life-time of equipment, utilisation factors, interest rates, energy prices, return of investment etc.

It adds to the complexity that energy efficiency can be achieved in many ways making use of several technologies (lighting, ventilation, automation, control, solar shading, insulation, design etc.) that also may have an impact on the performance of each other. A “Negawatthour” can have many different appearances.

[1] Which includes end users activities such as: to purchase, install, maintain and use the equipment correctly.

It adds further to the complexity that the economic optimum might not be the only target to aim for. Energy efficiency has multiple benefits that are of interest both to the individuals and the society, such as productivity, energy security, poverty alleviation, asset values, job creation, health, public budgets, productivity, comfort, not to mention all the environmental benefits of reducing energy waste.[2]

The development of ICT, the miniaturisation of supply side technologies for use of local resources of renewables and application of smart technologies means that the earlier clear border between demand side and supply side is gradually getting more and more fuzzy.
Traditionally, the issue of levelling the playing field between the supply side and the demand side in order to achieve the least-cost solution of delivering energy services was a simple mathematical problem of equalling the cost for energy efficiency measures on the demand side to the price of the supplied energy. Neo-classical economics taught that actors on both sides being economically rational should eventually lead to the optimal solution.
Experience, however, shows that even if the potential to reduce the use of economic and physical resources is obvious and high, this will not happen by itself.

- The actors involved are several and the interplay between them is complex.
- Actors may try to act rational but are biased by their framing of the issues. Behavioural economics needs to be acknowledged and applied.
- The incentives for all actors are not evenly distributed and homogenous. Some actors even lose money when energy efficiency is applied.
- It is not only an issue of combining the best technologies, but even more so an issue of the behaviour of parties and individuals involved.
- The performance of the energy system has a great impact on environment and even if the impact of individual actions is small the sum may be of huge importance.

The opportunities to improve energy efficiency must be harnessed in a systematic way. This will require management skill – Demand Side Management (DSM) skill.

Result = Potential * Acceptance

The potential for cost-effective energy efficiency is already well established. The IEA WEO 2012 estimated it to be of such significant importance that it could both reduce the emissions of GHGs and at the same time reduce the bills for energy use, see Figure 1 below.
The potential per se is therefore not the issue. The problem is to get sufficient acceptance of energy efficiency measures by the users of energy. Any huge number multiplied with zero will stay zero! Acceptance, understanding and uptake have been too low to release the potential in full. DSM means working on both the issues in order to get a full result by a large-scale deployment of energy efficiency.

Result = Potential * Acceptance

(1) Potential

Compared to present energy use the potentials to reduce the energy use whilst maintaining the same level of service are in double-digit percentages worldwide. There is a need for growth in energy services to get a more even distribution of welfare in all countries. This requires both, deployment of Best Available Technologies (BAT) and development of improved Technologies (BAT+). It also requires to induce changes in behaviour (and purchase, use and maintenance of technologies).

[2] Spreading the net. The Multiple Benefits of Energy Efficiency Improvements. IEA 2012. http://www.iea.org/publications/insights/ee_improvements.pdf

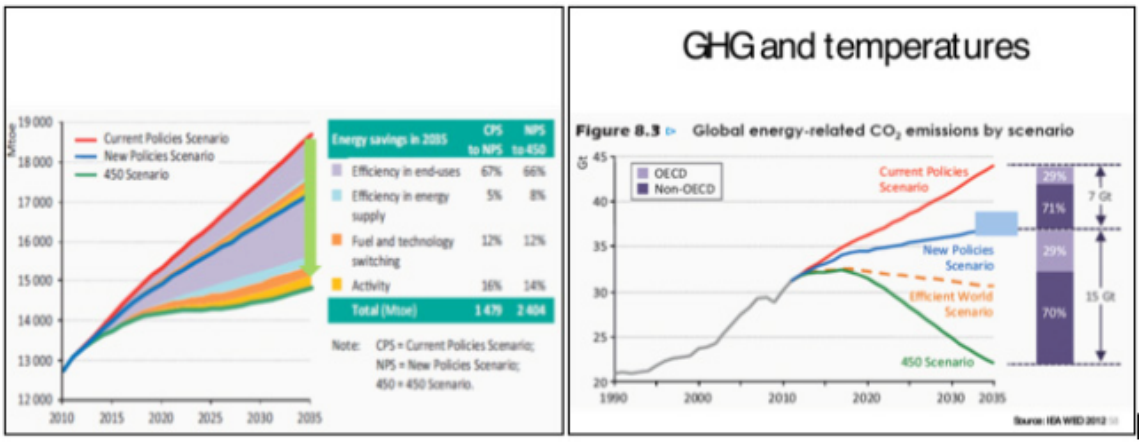

Figure 1: World Energy Outlook 2012 shows that the profitablepotential is far from exploited. The "Efficient World Scenario" shows that, ifit would be, it could contribute significantly to the necessary reduction ofGHG.

Furthermore, this big potential is not fixed but growing for reasons of market dynamics. Prices of energy are generally rising and costs for energy efficiency technologies are declining with market growth and "market learning".[3] Both these effects will result in an even bigger potential.
The potential is still systematically underestimated since:

- The perspective on timing and payback regarding the measures is too short and do not take life-time aspects or investment cycles (several decades) into account.

- The full benefits of energy efficiency are seldom taken into the calculations, partly since they are hard to quantify, and therefore easily underestimated and partly because economic analysis usually shuns the 'soft' benefits, such as health, comfort, security, affordability, social responsibility, convenience etc. Flow-on effects on macro-economic measures such as productivity (e.g. if fewer people get sick or have to stay at home to look after sick children when they insulate their homes) are also often ignored in cost-benefit analyses.

- The costs for energy efficiency improvements are overestimated since traditional views on energy efficiency are based on fragmenting and itemising the changes (pick low-hanging fruits in merit order) instead of making holistic packages of inter-connected activities.

- Some costs (externalities) are not present in the supply side costs/prices to which energy efficiency is compared and some bad behaviours and technologies are currently subsidised, thus making comparisons difficult.

- Planning is normally absent from calculations, which assumes that activities are mostly undertaken overnight. Energy declarations and energy management systems are at least in part solving this.

There is generally a common understanding among actors and institutions about these issues, but less about the scale and benefits of ramping up the deployment of energy efficiency, and even less about how it can be done – and by whom.

According to the IEA WEO 2012 we need to see a massive change in investment patterns to achieve the efficient world scenario. Resources have to be funnelled from the supply side to the demand side, see left Figure 2 below. Such operations may involve a change in priorities among actors and development of operational modes that not all of them find natural.

The demand side of the market is often addressed in a simplified manner as if there were a

[3] Market learning is normally captured in "learning curves" and comprises both technological and organisational development. In classical innovation terms there are several innovations in parallel such as products, processes, business models and sources of supply.

manufacturer and a user. In reality, there are many parties involved in the transaction, see on the right of Figure 2 below. These may or may not be interested in a change that could benefit or threat their current businesses. We have to be able to address them all with solidly researched and tested material that could raise the acceptance for a change.

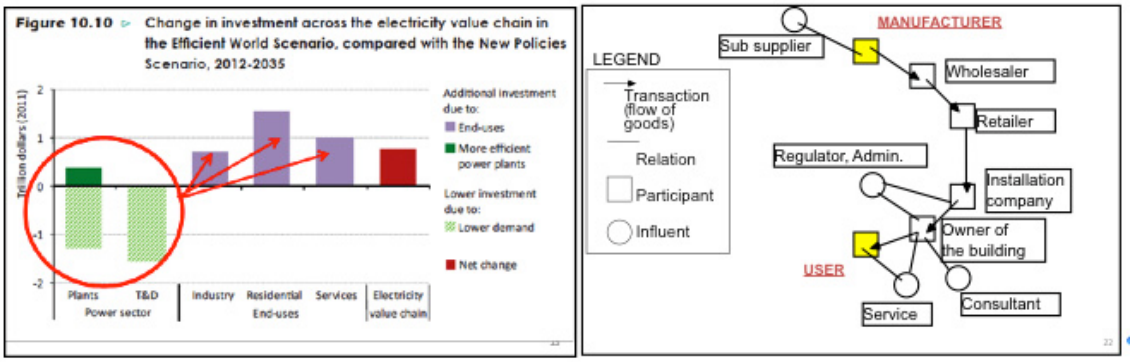

Figure 1: A shift to realise the huge efficiency potential involves many actors. Not all of them winners. Some of them are not fully conscious about their role in the shift.

Actors' different contexts should be considered in terms of how they can act on DSM locally in their daily work. Their general role (and how they can be approached), fall into two categories.

- The primary actors (involved) who represent those who finance our work and who perform DSM as a part of their daily work (policymakers, managers and programme implementers).
- The secondary actors (supporting) those who have their own missions
- (Initiatives, Missions and Research), but who can be co-workers and/or whose results can cross-breed with the IEA DSM Programme.

	Target Group	Should Learn About	Via Channel	With Product
Primary	Policymakers	Costs and benefits calculations based on real return, including soft benefits.	• IEA Secretariat • Exco members • Operating Agents	• Direct Contact (supported by e.g. flyers) • Seminar presentations
	Managers	• Organisations (experts?) • Governance • Planning • Methods	• Workshops • Newsletter • Journals (engineering and R&D) • Social Media	• Articles (both on projects, tasks and on cross-cutting issues) • DSM-University
	Programme implementers	"Tricks" of the trade		
Secondary	Initiatives (e.g. IPEEC, CEM, IRENA etc.)	**THAT** IEA DSM exist and **WHAT** we can do together	• IEA Secretariat • ExCo members • Operating Agents	• Direct Contact (supported by e.g. flyers) • Seminar presentations
	Missions (ICLEI, Energy-Cities, etc.)			
	Research and organisations (e.g. ACEEE, ECEEE, CCEEE)	What **material** is available for their "inspiration" and how it connects to their work.	Assessment lists, Expert platforms, workshops, surveys, active participation in e.g. summer studies, activation of members on social media	

Table 1: Different actor categories, their "needs" to learn aboutDSM-issues and examples of ways to reach them.

Actor	Function	Aim	Instrument	
Government	Providing institutional setting and incentives/policies	Welfare (including Security and Prosperity)	Law, Taxes, Subsidies, Information Regulation	
Municipalities	Specific institutions (e.g. planning monitoring)	Public good	Plans and activities within a given jurisdiction	
Utilities	Provider	Business (profit)	Energy	Energy Services
Supplier (hardware and services)			Goods	
User	-	Service (Light, Power, Climate)	Behaviour change	

Table 2: Actors, their function and their interest in the process to achieve energy efficiency

There is a need for IEA DSM programme to work on issues related to the potential in order for actors to be more skilled in identifying and visualising the opportunities and to address them accordingly. This work is related to PLANNING.

Planning

Instances that should decide on the right DSM measures or about the type and size of programmes may need better tools. Important areas for work are:

- Integrated Resource Planning, IRP. In many developing countries there is very little knowledge and experience on the opportunities that DSM may provide.
- The multiple benefits of energy efficiency – quantification and allocation. The simplistic calculation currently used says that reduced energy use should pay for the investments and therefore some benefits are left out from the calculation. Some of these may be even more important and bigger than the savings itself. Energy security, health and job creation are such.
- Stakeholder positioning. Many stakeholders are reluctant to enter more formal programmes since they do not see the full impact of a change where the focus is on user services and not energy sales. This could apply to the TSOs for instance but also for many others where e.g. utilities reluctance to accept Energy Efficiency Obligations. The same applies to the distribution chain of goods for energy efficiency (see above under 'The market').

These issues are of particular importance for governments and municipalities, but also for regulators and branches of industry.

(2) Acceptance

Traditionally, the thinking has been that actors, being rational, eventually should recognise energy efficiency improvements as being "profitable" (in a broad sense) and accept them as their best solution. If they did not take up energy efficiency measures it was because they did not regard them as important which, by definition, meant they were not "profitable" for them.
It is obvious that old business models based on such a paradigm, and in which energy is the main issue instead of the service (light, motive power and climate (heating and cooling)) provided, are insufficient to realise the full potential of energy efficiency.

Even less so when energy supply can be distributed and local, from smaller units, and in smart grids that enables the users to also generate at least some of the energy they need.
The user acceptance and uptake for energy efficiency is far more complicated than the traditional models based solely on economical rational behaviour suggested and gets more complicated with

new technologies. The on-going changes in technologies, primarily ICT (smartness) and miniaturisation of supply side options (PV, Wind, Heat-pumps) opens for a radical change of energy business in the near future.[4]

The task for the DSM Programme is therefore also to find and communicate ways to raise the acceptance to promote uptake of energy efficient measures. There is, however, a wide variety of stakeholders that all can either promote acceptance or counteract, the latter normally not wilfully, but by ignorance or doubt.

To foster DSM and make better use of the material we need to build operational alliances with representatives for the categories:

Government which is basically our own core constituency but there are several other institutions that are either new on the scene, such as CEM (Clean Energy Ministerial) or that represent technology perspectives that are related to DSM, such as other IAs within the IEA.

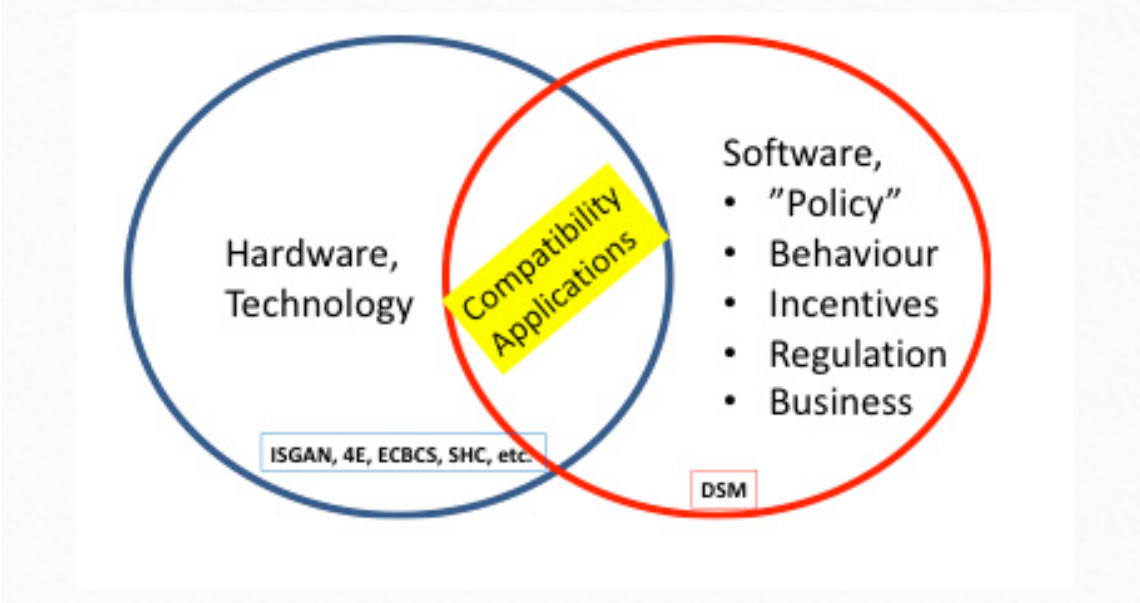

Figure 3: Relation between the DSM-Programme and other IEAImplementing Agreements

- Municipalities that, to a growing extent engage in energy issues with the growing market for decentralised, small-scale, renewable energy even if they disengage in the traditional utility sector. In Europe, the Mayors Initiative has grown tremendously.[5]

- Utilities that have essentially withdrawn from our Programme and when they show an interest it is mostly in the Load Shape work. For some of them the issues of integration (Task 17) and those related to "smart grids" (Task 23) may be of interest. Our relation to RAP is useful and solid. More utilities are expressing interest in their customers' behaviours (Task 24) and are looking for better ways to promote uptake of their DSM initiatives.

- Suppliers of hardware and services that may be the big winners on the market for energy efficiency. These are, however, not very well organised and work primarily in niches defined by the technology they provide. Our new contacts with the European Copper Association (ECI) may be the best way in. Our earlier contacts with big companies such as Schneider may have to be reconsidered and refreshed since interest changes over time.

- Researchers and innovators who design new energy efficient technologies and study the

[4] See e.g. Walt Patterson "Everything you know about electricity is wrong" (http://www.abc.net.au/environment/articles/2011/06/10/3239321.htm)

[5] We have earlier had a fruitful operation with the organisation Energy Cities (Task 9).

societal and economic drivers of market failures. Several Tasks (particularly Task 24) have very strong alliances to researchers from many disciplines (economics, behavioural and evolutionary and ecological economics, social and environmental psychology, anthropology, sociology, science and technology studies, engineering etc.), including the private sector (e.g. research consultants doing practical and field research).

- Intermediaries who roll out energy services and products such as ESCo's, ESCo facilitators, tradespeople, landlords, realtors, energy consultants, energy auditors and managers etc. These are some of the most important actors as they receive considerably more trust and attention from energy end users. We have not engaged enough with this sector, although Tasks 16 and 24 are actively pursuing this group.

These actors may express their needs in the same terms but need to be supported differently because of their differences in mandates, function and methods. The DSM-Programme has some advantage in this respect having produced material for e.g. regulators, policy-makers, municipalities, ESCo's etc.

There is a need for IEA DSM Programme work on issues related to the acceptance and uptake of energy efficient measures so that actors become more skilled in understanding how decisions can be framed in formats that are useful and operational for different actors.
This work is related to BUSINESS MODELS.

Business Models

The DSM Programme has for quite some time been on the track of detecting future business (Task 10, 14, 16 and 22) but it might be time to do it more formally by focusing on:

- Business cases when developing energy efficiency obligations, EEO. The utility is only one part and others are the suppliers of hardware and services to the market.

- Energy Management. There are now several standards for energy management. Probably all of them good but also with differences in applications depending on company size and purpose. There could be reason to check these out in more detail and provide advice on applicability.

- Incentivising to upgrade acceptance. Since users are not fully rational and mostly operate on habits and routines, some of the traditional incentives (subsidies, taxes, information) are not enough to "clear the market" and foster change. There are many different models of understanding behaviour and theories of change that can help improve uptake in a variety of contexts, conditions and situations. The Implementing Agreement can help find the right tactics for different situations, contexts and needs. Behavioural economists have detected some of the systemic errors we have when making decisions and also suggested methods (nudges) to overcome them.

- Financing: Debates with the financial sector have shown that financing and technology are often worlds apart. As the two sides don't understand each other, investments aren't made that could be very profitable. Within DSM we have to explore this topic in order to give relevant (policy) advice and tools to the market. The ESCo work might be a starting point.

Technology and change: Methods and acceptance of the importance that humans use energy to have services, not the technology per se. There is a growing insight in the IEA Technology Network that knowledge about behavioural issues is essential and has to be made available and made operational to reach the energy efficiency goals. With Task 24 as a starting point we can offer our target group(s) and other Implementing Agreements additional knowledge and tools. Optimising the use of ICT (smart grids/meters, apps) will become a fundamental part of "Technology and Change".

Strategic Issues

Application of DSM will allow not only economical but also the following societal benefits to be delivered:

- Less price volatility by improving short-term price elasticity
- Improved system reliability by reducing peaks and adding to safety margins
- Enhanced system security by reducing dependency on vulnerable supply resources
- Improved restoration capacity by dispatching in/after emergency situations
- Less costly network reinforcements since energy efficiency measures will be active alternatives
- Distributed generation as alternative to transmission lines
- Roll-out of smart meters, feedback devices and support of a smart grid
- Improved understanding of the complex issues driving energy use – behaviours and practices, both individual and societal
- Improved operation and use of flowing renewable sources
- Elastic response as complement to competition

Vision and mission

Based on the previous analyses the DSM Implementing Agreement has the following vision and mission:

The vision of the IEA DSM Programme is that: “Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and sustainable energy systems”

The mission is to: “Deliver to its stakeholders materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver methods and applications that either facilitate operations of energy systems or facilitate necessary market transformations.”

Stakeholders (and target group categories)

The Programme has three major stakeholder groups. The Programme will provide:

a) governments (including regional and local) with increased capabilities to develop policies and programmes for more effective use of DSM and energy efficient technologies, and better ways to evaluate the success of such interventions;

b) energy businesses with the relevant information and tools necessary to create new cost-effective products and services in response to domestic and global opportunities

c) The Programme should also enable access to information and participation to

d) other stakeholders that advocate energy efficiency and sustainable energy systems. It will draw on researchers to develop a strong connection between good theory and best practice.

Within this general characterisation of stakeholders it is useful to recognise a multitude of actors that may have interest in DSM such as:

- Utilities
- Regulators
- National, Local and Regional Administrations and Agencies
- Industry and Trade Associations
- System Operators
- Customer Organisations and larger Customers
- Universities
- Research Bodies
- Journalists.

Products, Outlets and "Events"

It is necessary to develop a range of products that could suit several categories of users and that could be developed and delivered in sequence during the work of a Task. The Programme's products will include:

- Reports from the on-going work (Minutes from Experts meetings, compilations of presentations, questionnaires, etc.)
- Publications of results (analysis, overviews and conclusions that might be accompanied by background material, etc.)
- Website and social media
- The "DSM-University"[1][6]
- Articles for professional journals and magazines
- Task workshops and presentations at international workshops and conferences
- Forums for dissemination and/or discussion with possible users, customers, decision-makers, etc. both on and offline.
- Growing pool of individuals and organisations in each country that develop new expertise in DSM issues and solutions
- Databases
- Expert platforms
- Software for calculations, simulations, etc.
- Training seminars and courses
- Award of Excellence to be delivered once a year to a company or a product that facilitates DSM.

In particular it has been noted and reported in the DSM Annual reports that the dissemination of results is discouraging. For this purpose it is important to develop the products and the channels for distribution. DSM is complex and requires more efforts e.g. by development of a "DSM-University" that could also include participation with other stakeholders and Implementing Agreements.

The vision is that a DSM-University is a Virtual Centre of Excellence and will provide a consistent and persistent method of delivering value from all IEA DSM tasks and enhance the knowledge transfer and action resulting from the investment made in these IEA DSM sponsored projects. The DSM-University refers to a combination of instructor led training courses, organized research and white paper library, self paced online training, IEA sponsored certifications, actionable toolkits, continuing education credits, monitoring and evaluation services, and a structured knowledge management process to collect, organize, package, and deliver new work completed by IEA DSM Tasks. The Centre will provide an umbrella for stakeholders after projects are completed to further the use of the work performed by their Task.

[6] It is clear that Publications are insufficient as tools. They need to be edited and probably remade completely to address user/actor interest and not only be the result from an anonymous Task. The DSM-University is a start to make material more available and accessible.

Allies

Activities all over the world have increased notably to improve energy efficiency and to have a large-scale deployment of technologies. The DSM-Programme is therefore seeking collaboration with entities that have similar ambitions and where our comparative advantages could complement each other. This may not have to be countries but also organisations such as REEEP, CIGRE, the World Bank, IFC, ELI etc.

We will explore the options to work with other parties on this topic. Specifically with ECI and ISGAN.

We should try to be more assertive in participating in workshops and advocating both DSM as an idea as well as specific DSM applications. DSM is however not the catchy buzzword it used to be for many audiences, but it may still gather interest in many developing countries. This should be discussed more in detail with organisations such as REEEP and IRENA. First step is to make them aware of our material and a follow up would be to see if they would be interested in some rewriting for their purposes.

We should also discuss with some other IAs within the IEA family if they have similar needs. Starting with ISGAN and ECB. The Secretariat has to play a more dominant role in this.
It is also important to improve co-operation with the IEA Secretariat. The Programme can thereby bring its expertise together with the convening power and dissemination capacity of the Secretariat. This co-operation should be based upon the following principles:

- The Programme has access to experts in the DSM area that could, if desired, make recommendations to the Secretariat on technology development and policy action matters.
- The Secretariat has dissemination capacity to government policy both on a regular basis and at certain specific occasions as well as a dissemination capability for products. This can be accessed for mutual interest of the Programme and the Secretariat to highlight important issues.
- The IEA as a body has a “convening power” in its status and its name that can be used to gather parties from different communities to discuss solutions to special problems.

APPENDIX I TO STRATEGY

POSSIBLE FUTURE WORK FOR THE DSM ETI

General

The Intellectual Property developed in earlier work should be safeguarded, developed and disseminated, e.g. by considering:

Access and availability of results from completed Tasks is still an important issue. The on-going change of the web site improves the availability but there is still a need to consider how some of the reports should be both easier to access by e.g. editing of the material.

Training and capacity building through the DSM University.

Demonstration.

- An integral part of each Task as an information and dissemination Task
- A separate Task collecting case studies
- A separate Task to undertake demonstrations (very expensive and rather involve industry for this)

Task reformation

- Extension: (meaning) that the Task could be reassessed and continued.
- Joint Activity: that the Task could be developed together with other interested parties
- Transformation: that the Task could use its IP and be applied on other issues/technologies, e.g. starting on technology procurements again.
- Service: that the Task (and its output) could be formed as a service to be marketed to other parties

Co-operation with other Implementing Agreements

- Consider a coordinated load levelling activity with the Energy Storage Programme
- BCG-IAs, Buildings Co-ordination Group (Storage, Buildings and Community Systems, heat Pump, District Heating and Cooling, Solar Heating and Cooling, Photovoltaics
- ISGAN
- 4E (End-Use Equipment Energy Efficiency)

Specific

These are suggestions that have been raised and discussed at meetings during the last years:

Issue	
Increasing Energy prices (and Market Design issues	Problem – Large share of electric heating in homes and they do not likegrowing prices; energy intensive industry does not like high energy prices; high bills for home-owners (fuel poverty). Objective – Explore how EE and DSM can mitigate energy price increases Approach – Workshop.In February 2003 there was a workshop help in Paris: “Demand Response in Liberalised Energy Markets”, which also was the trigger for a work within the DSM Programme called “Demand Response Resources” (Task 8) This should be followed up with a widening of the concept and

	also cover other measures. “Market Re-Design Options” and cover also White Certificates from our Task 14.
Smart meters in Energy Services	
Security of supply	Study how energy systems respond to crisis – What happens during a crisis; What do users actually do, do they do load levelling and what impact does this have on reliability and security.
Portfolio development – Impact study	Study how economies can reduce electricity growth by 10 or 20% in 10 years by energy efficiency and DSM measures.How can governments put up targets and meet them.
Models and initiatives for boosting technologies	Aggregated Procurements, Dynamic top-focused standards, Clearing-houses for programmes.
Energy Efficiency ownership (new aggregators	New aggregators and need for aggregators.
Networking and initiatives to reinforce services an promotions (ESCOs, Marketing, Municipality involvement	Address a wider aspect of local responses to energy system problems aside from demand-side activities, energy and end-use activities.

Rate-design	Perform a comprehensive analysis of various economic incentive and fiscal measures including pricing systems, tariffs and levies. Develop new tools for international comparison of the impact of different tariff systems and energy labels on GHG emission reduction.Problem – Rate designs do not encourage EE, need to use time of day tariffs, electric prices could be good signal, need to incorporate externalities and incentives for EE.Objective – Study various rate-design strategies and recommend best-practices for designing rates to reduce demand and peaks.Approach – New Task.
Advanced Lighting Programmes	We have to do something for lighting programmes such as e.g. the utility-sponsored roll-out programmes in many developing countries, but also for new lighting technologies that may also be more important for Demand Response and/or more useful in connection with distributed generation. Possible partners: ELI.
Climate Change – Energy Efficiency in the CDM projects	Quantify and document the impact of EE on climate change Fungible Instruments.
Directive on energy services (EU)	Regulatory matters related to energy efficiency – What areas of energy efficiency are best regulated and what should be purely market-based.
Lack of Awareness of DSM	Link with Ownership and Aggregators. The IEA DSM Programme award of excellence could be taken up again. The “State of DSM in the world” also. Another idea was to create a DSM clearing-house.
Bottom-up evaluation	
Monitoring and Verification	Workshop
Energy Efficiency (low) impact	Link with M&V
Transmission needs	
Standards and labelling	It was suggested that the development of the suggested new IA should be observed and then possibly discussed with them.
Growing demand	
White Certificates	Follow up practices
Tax Policies	
Planning tools	
Optimising investments	

Distribution needs	
Windfall profits	
Demand response (legal property right) certificates	
Financing related to ESCOs	