IEA Implementing Agreement
Demand-Side Management
Technologies and Programmes

FORTY FIRST EXECUTIVE COMMITTEE MEETING

PRE–MEETING DOCUMENT (PMD)

24 - 26 April, 2013
Utrecht, Nederland

Part 1

Forty First Executive Committee Meeting

24 – 26 April, 2013

MATTERS FOR THE EXECUTIVE COMMITTEE

EXTENSIONS OF WORK AND NEW WORK

The delegates are URGED to prepare their responses to these presentations carefully and primarily by contacting the possible stakeholders before the meeting. The format for these proposed New Tasks will be a brief presentation that focuses on the:

- **Motivation** for the proposed work (what issues does it tackle?) what is it trying to achieve? Who is the target audience?;
- **Objectives**;
- **Approach** to accomplishing the proposed work;
- **Deliverables** – (what will be delivered? What will you do with it to get it adopted?)
- **Dissemination plan** – what will need to be done to get the results adopted? Who will do it?
- **Required resources**

The proposed New Tasks discussion will aim at one of the following decisions:

1. Decide to **initiate the new Task** based on work done to date.
2. Decide to initiate the **Task Definition** for a new Task. Interested countries must be prepared to assign the appropriate expert(s) to participate in that process.
3. Decide that additional work is needed on the **concept paper**. Interested countries must be prepared themselves, or to assign the appropriate Experts to help further develop the concept.
4. Decide to pursue the subject in co-operation with other parties within the IEA or elsewhere
5. Rejection (or moth-balling)

SEE APPENDIX TO THE AGENDA

Agenda item 1b. ExCo approval of the Agenda

The Agenda is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Agenda

Agenda item 1c. ExCo approval of the 40th ExCo meeting Minutes

This item is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Minutes from the 40th Executive Committee meeting

Agenda item 2b. Project Preparatory Committee

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Project Preparatory Committee Report

Agenda item 3a. Development of a DSM University

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the report
- Decide to proceed with the DSM University

Suggestions for the ExCo

Action Plan till autumn meeting 2013 to (under the supervision of the chairman):

1. Take contact with organisations that have a pronounced interest in the matters (such as REEEP, CEM, NDRP) to find out (a) if they would be interested in some sort of cooperation to exploit our existing material in some form and (b) if they would be interested in development of new tasks.
2. Develop actor-oriented combinations (packages) of existing material and check with e.g Energy Cities and the Mayors Initiative in Europe opportunities as above.
3. Task 1 handbook should be revisited for purposes as mentioned above in text.
4. Make a survey among interested on Facebook and Linkedin
5. Find channels and hosts that could serve as outlets (we have the copper institute and RAP "in-house")

This will require extra time and some travel by the advisor. This is estimated to require a budget (from the common fund) of up to 40 000 USD including the present assignment.

Agenda item 4a. Extension Task 17

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Status Report

Agenda item 4b. Task 23 – Role of the Demand Side in Delivering Effective Smart Grids - Task Status Report

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Task Status Report

Agenda item 4c. Task 24 – Closing the Loop – Behaviour Change in DSM: From theory to policies and practice – Task Status Report

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Task Status Report

Task 24 started its operation in January 2012, although its final work programme was not officially balloted by the ExCo until July 2012, which is the new official starting date (decided by ExCo in Espoo, November 2012). If we officially get 8 countries (which will happen if Austria joins the Task), the Task will automatically be extended (without extra cost to the participating countries) until December 2014, including some additional time spent by the Operating Agents. This is to ensure there is enough time to hold workshops in all participating countries, including stakeholder analyses (necessary for Subtask 4) and case study collections (Subtask 2).

Subtasks	2012	2013	2014
Subtask 0 - Admin			
Subtask I - Helicopter Overview			
Subtask II - Case Studies			
Subtask III - Evaluation Template			
Subtask IV - Recommendations			
Subtask V - Expert Platform			

A 3-year Task extension is planned to turn theory into practice via action research projects to be standardised and contrasted amongst participating countries.

Agenda item 4c (a). EXTENSION: Task 24 – Closing the Loop – Behaviour Change in DSM: From theory to policies and practice

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the extension of Task 24

Agenda item 5a. Task 16 – Phase III – Energy Efficiency Demand Response Services

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Task Status Report

Agenda item 5b. Task 21 – Standardisation of Energy Efficiency Calculations – Task Status Report

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Task Status Report

Agenda item 5c. Task 20 – Branding of Energy Efficiency Services – Task Status Report

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the Task Status Report

The Operating Agent is in the process of development of 8 to 9 case studies on Best practices in branding of energy efficiency. These case studies will be used to identify the best practices in branding of energy efficiency. These case studies will be part of the proposed report on "Best Practices in Branding Energy Efficiency". As proposed the report on subtask V will be ready by the end of the April 2013.

Agenda item 6a. Draft report – end of term – future of the DSM Agreement

This Status Report is submitted to the IEA DSM ExCo meeting in Utrecht, Nederland with a request for the ExCo to:

- Approve the work on the report so far

APPENDIX 1

Participant	**TASKS**								
	In force						**Under preparation**		**Proposed**
	16 ext.	**17**	**20**	**21**	**23**	**24**	**New Task**	**17 ext.**	
	DR for smart grids. Business cases and energy services	**Integration of DSM, Distributed generation,**	**Branding of Energy Efficiency**	**Energy Standards**	**DSM in delivering smart grids**	**Closing the Loop: DSM From Theory to practice**	**Work on Transmission Companies (TSO's)**	**Integration of DSM, Distributed generation**	**DSM University**
Australia									
Austria	X	X				◆			◆
Belgium	X					X			
Finland		X				◆			◆
France		X	X	X					
Greece									
India	X		X						
Italy									
Korea	X			X	X	◆			◆
Netherlands	X	X		X	X	X			◆
New Zealand						X			
Norway	◆			X	X	X			◆
Saudi Arabia						◆			◆
South Africa				◆					
Spain	X	X	X	X					
Sweden	X				X	X			◆
Switzerland	X			X		X			
United Kingdom,					X	◆			◆
United States			X	X					
RAP *						◆			◆
OPERATING AGENT (OA)	**Jan W. Bleyl**	**Seppo Kärkkäinen**	**Balawant Joshi**	**Harry Vreuls**	**Linda Hull**	**Sea Rotmann**	**Jan Ove Gjerde**	**Matthias Stifter**	**Hans Nilsson**

Participates = **X**
Interested = ◆
Sponsor = *

IEA Demand-Side Management Programme Forty First Executive Committee Meeting
24 – 26 April, 2013

DOCUMENT A

AGENDA

Wednesday 24 April, 2013

09:30 – 16:30 **WORKSHOP:** 17:00 – 18.00 **Visibility Committee meeting**
18:00 – 20:00 **Operating Agents Meeting**

Thursday 25 April, 2013

09:00 – 10:30	**1. GENERAL BUSINESS/WELCOME**	
	1a. Welcome – *Rob Kool*	
	1b. **ExCo approval** of the Agenda	DOC A
	1c. **ExCo approval** of the Fortieth ExCo meeting Minutes	Distributed earlier
	1d. Status of the Implementing Agreement	
	1e. IEA Relations	
	- Secretariat news	ATT A
	- Contacts with country representatives	
	- Contacts with possible sponsors/ new participants	
	Rob Kool, Steve Heinen, Desk Officer	
	- IA relations, BCG and ECG, *Rob Kool*	
	2. OPERATING AGENTS MEETING	
	2a. Operating Agents meeting report – *Rob Kool*	
10:30 – 11:00	**Coffee Break**	
11:00 – 12:30	Report from the Project Preparatory Committee (PPC) *Rob Kool, Hyeong-Jung Kim, Hans Nilsson*	DOC B
	3. NEW WORK	
	3a. Development of a DSM University - *Hans Nilsson*	DOC C
12:30 – 14:00	**lunch**	

The proposed New Tasks discussion will aim at one of the following decisions:

1. Decide to **initiate the new Task** based on work done to date.
2. Decide to initiate the **Task Definition** for a new Task. Interested countries must be prepared to assign the appropriate expert(s) to participate in that process.
3. Decide that additional work is needed on the **concept paper**. Interested countries must be prepared themselves, or to assign the appropriate Experts to help further develop the concept.
4. Decide to pursue the subject in co-operation with other parties within the IEA or elsewhere
5. Rejection (or moth-balling)

14:00 – 16.00 (Incl. coffee break)	**4. CURRENT TASKS – LOAD SHAPE CLUSTER**	
	4a. Extension Task 17 – Integration of DSM with other Distributed Energy Resources – Phase 3 *Matthias Stifter*	DOC E

	4b. Task 23 - Role of the Demand Side in Delivering Effective Smart Grids – Task Status Report, *Linda Hull, EA Technology, United Kingdom*	DOC F
	4c. Task 24 Closing the loop – Behavior change in DSM: From theory to policies and practice *Sea Rotmann, EECA, New Zealand* *Ruth Mourik, DuneWorks, The Netherlands*	DOC G
	Extension Task 24 – *Sea Rotmann* *Ruth Mourik, DuneWorks, The Netherlands*	DOC H
16:30 – 18:30	**5. CURRENT TASKS – LOAD LEVEL CLUSTER**	
	5a. Task 16 – Phase III Demand Response (for Smart Grids): Business Cases and Energy Services, and ESCo's as potential allies forthe system's operation (DR mechanisms) - *Jan W. Bleyl, EnergeticSolutions, Austria*	DOC I
	5b. Task 21 – Standardisation of Energy Efficiency Calculations -Task Status Report – *Harry Vreuls, NL Agency, Netherlands*	DOC J
	5c. Task 20 – Branding of Energy Efficiency Services, Task Status Report, *Balawant Joshi, ABPSInfra, India*	DOC K
Adjourn	Hosted dinner 19:30	
Friday 16 November, 2012		
8:30 – 12:30 (incl. coffee break)	**6. FUTURE OF THE DSM PROGRAMME –**	
	6a. Report from the workshop	
	6b. Discussions regarding the application for another 5 year term	DOC
12:30 – 13:30	**Lunch**	
13:30 – 14:30	**7. PROGRAMME VISIBILITY**	
	7a. Programme Visibility Report, *Rob Kool* Website statistics Communications Plan *Jos Wassink/Sea Rotmann* Website *Matt Alexander, Solstice*	DOC O ATT C
	8. ADMINISTRATIVE MATTERS	
	8a. Financial Report 2013, *Hyeong-Jung Kim* Accountax Status Report 5 year summary of account status	DOC P ATT C ATT D
	8b. Status of Common Fund payments – *Hyeong-Jung Kim*	DOC Q
	8c. **ExCo approval** of Forty Second ExCo meeting in Switzerland	
	8d. Pecha Kucha – "What will happen if you stay"	

APPENDIX TO THE AGENDA "Issues for the decisions and the process to reach decisions"

The delegates are URGED to prepare their responses to presentations carefully and primarily by contacting possible stakeholders before the meeting. The format for these proposed New Tasks will be a brief presentation that focuses on the:

• **Motivation** for the proposed work (what issues does it tackle?) what is it trying to achieve? Who is the target audience?;
• **Objectives**;
• **Approach** to accomplishing the proposed work;
• **Expectations/Results and Deliverables**
• **Dissemination plan** – what will need to be done to get the results adopted? Who will do it?
• **Required resources**

Concept and Task Definition Papers (Process and phases)
Before a new Task is starting the concept has to be defined and presented in order to attain the interest of possible participants.

PHASE 1: IDENTIFY NEW ACTIVITIES
Resulting in a CONCEPT PAPER (2-5 pages) containing

- Motivation
- Objectives
- Approach
- Expectations/Results

PHASE 2: DEFINE NEW ACTIVITIES
Requiring an EXPERTS MEETING to propose

- Task Work Plan Resource needs: Task or cost sharing
- Dissemination, Task Information Plan

CONTENTS OF PROPOSALS FOR NEW WORK.

The document that will propose the new work to the ExCo could be organized and have the Following contents:

1. Background and motivation
2. Objectives
3. Issues for the new work (scope)
4. Structure (sub-tasks)
5. Management (responsibilities of the Operating Agent, Sub-task leaders and Experts)
6. Deliverables (for whom, target groups)
7. Time Schedule and milestones
8. Funding and Commitments (Resources needed)
9. Meetings plan
10. Information activities
11. Co-operation with other IA's, the Secretariat and other interested parties
12. Country contributions to funding and tasks

Annexes: Detailed description of sub-task

ACTION ITEMS RESULTING FROM THE FORTIETH EXECUTIVE COMMITTEE MEETING OF THE DSM PROGRAMME

15 – 16 November 2012, Espoo, Finland

WHO	**ACTION**	*WHEN*
India Korea	Pay Common Fund invoice for 2012	ASAP
Rob Kool	Maintain contacts with Thailand, South Africa, Brazil, Russia, Saudi Arabia, Kuwait, NRDC (USA), NRDC (China), Electrolux, Eurelectric, Edison Electric Institute, EnCT (Germany).	ASAP
Rob Kool	Contact Schneider Electric and confirm their intent to become Sponsors	ASAP
Anne Bengtson	Send written invitation to European Copper Institute to become Sponsors	DONE
Anne Bengtson	Prepare Annual report and send to the IEA	DONE
Anne Bengtson	Apply to CERT to approve the European Copper Institute as a Sponsor in the DSM IA	DONE
Hans Nilsson DSM University	Distribute press release at the eceee Policy Seminar – The WEO Challenge – 21 November 2012	DONE
Hans Nilsson	Produce an activity plan – matrix "to do list"	UNDERWAY
Richard Cowart	Discuss CEM with Larry Mansueti	UNDERWAY
Rob Kool	Contact ACEEE and eceee and CCEEE about joint conferences. Also contact organisers of Renewable Conference and other relevant conferences in the planning stages. Look into arranging a DSM conference every second year	UNDERWAY
Hans Nilsson Sea Rotmann	Develop a plan on how the DSM Visibility Committee and the DSM University can collaborate	UNDERWAY
Even Bjørnstad Jan Ove Gjerde Virginia Hyde Richard Cowart Hans De Keulenaer	Develop the concept paper on work related to Transmission Company issues. Form a small group incuding RAP, Task 17 OA and ECI to discuss the further development of the concept paper. Check the proposal with other IAs for possible overlap, suggest a potential Operating Agent.	No Concept paper will be presented
Seppo Kärkkäinen Matthias Stifter Rene Kamphuis	Develop a final Work Plan with a financial paragraph – hold a Task Definition meeting.	NOT DONE
ExCo members Operating Agent	Seek funding for the Task 17 extension	UNDERWAY
Seppo Kärkkäinen	Write two articles for the Spotlight Newsletter highlighting the results of Task 17 Phase 2, and write a column for the DSM website	NOT DONE
Anne Bengtson	Upload 8 finalised reports to the DSM website	DONE
Linda Hull	Seek signature from UK ExCo member to formalise UK participation in Task 23.	DONE
Linda Hull	Invite Italy to participate as a guest/observer in Task 23 to share their experience	DONE

Cont. Action Items

Sea Rotmann Ruth Mourik	Develop a more detailed proposal of a Task 24 Extension 2014-2016	Present at next ExCo meeting
Sea Rotmann Ruth Mourik	Arrange a webinar with interested Executive Committee members to inform more on the detailed proposal of Task 24 extension	ASAP
Balawant Joshi	Restart the work in Task 20 and produce final report by next Executive Committee meeting	ASAP
Operating Agents	Include 1-2 slides in the presentation, highlighting the main findings to date in their respective Task(s).	Present at next ExCo meeting
Harry Vreuls	Further develop the proposal for a potential new Task 21 extension – Subtask 5. Follow up interest for the extension.	Present at next ExCo meeting
Sea Rotmann	Develop a communications strategy for the DSM programme. Support development of individual communications and dissemination plans for all Tasks	Present at next ExCo meeting
ExCo members	Review website regularly and suggest further developments	On-going
PPC	Write final Draft Work Plan in the beginning of 2013	On-going
ExCo members	Send their final input to the Draft Work Plan February – April 2013	
Anne Bengtson	Keep reminding those who have outstanding payments to the Common Fund	DONE
ExCo members	Suggest topics for the Spotlight Newsletter and provide input for those articles	ASAP
Pam Murphy	Distribute issues of the DSM Spotlight Newsletter	April 2013
Rob Kool Anne Bengtson	Prepare administrative details for the Forty First Executive Committee Meeting in Utrecht, Nederland	DONE
Jan Bleyl-Androschin	Prepare a Task Status Report for Task 16 Phase III and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
Seppo Kärkkäinen, Matthias Stifter	Prepare a Task Status report for Task 17 Phase 3 and send to Anne Bengtson for inclusion in the Pre-Meeting Doc	DONE
Rob, Hans HJ Kim	Prepare PPC progress report and send to Anne Bengtson for inclusion in the Pre-meeting Document	DONE
Harry Vreuls	Prepare a Task Status Report on Task 21 and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
Balawant Joshi	Prepare a Task Status Report on Task 20 “Branding of Energy Efficiency” and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
Linda Hull	Prepare Task Status Report Task 23 and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
Sea Rotmann Ruth Mourik	Prepare Task Status Report Task 24 and send to Anne Bengtson for includion in the Pre-Meeting Document	DONE
Even Bjørnstad Jan Ove Gjerde Virginia Hyde	Send developed concept paper to Anne Bengtson for inclusion in the Pre-Meeting Document	NOT DONE Concept paper cancelled
Hans Nilsson	Further develop the proposal on a DSM University and present at the next ExCo meeting – send to Anne Bengtson for inclusion in the pre-Meeting Document	DONE
Hyeong-Jung Kim	Prepare Financial report for 2013 and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
		DONE

Sea Rotmann	Prepare Visibility Committee Report and send to Anne Bengtson for inclusion in the Pre-Meeting Document	
Operating Agents	Prepare Task Information Plans and include in each Task Status Report.	On-going
Solstice	Provide statistics for every Task every six months, send to Anne Bengtson for inclusion in the Pre Meeting Document	DONE
Anne Bengtson	E-mail pdf file of Pre-meeting Document for the Thirty Eighth Executive Committee meeting to the Executive Committee members and Operating Agents.	4 April 2013

AGENDA 2a. (41st meeting of the IEA DSM Programme)

Document B

Report from the Project Preparatory Committee

March 2013

Prepared by Rob Kool

This Project Preparatory Committee report is submitted to the IEA DSM IA EXCO meeting in Utrecht, The Netherlands, with a request for the EXCO to:
• Approve the Project Preparatory Committee Report

PPC Report

The PPC had two telecoms since the last meeting. The following topics were discussed:

1) Next work programme.
   a) The next programme starts in 2014, so we have extra time.
   b) The evaluation/report this period is more-or-less-finished.
   c) The strategy needs another round of discussion. Hans and Rob will prepare a document that can serve as discussion paper for the next exco.

2) Communication
   a) An intern (Jos Wassink started at Agentschap NL, on communications for the DSM programme. Theoretical framework on network society. Current communications will be analyzed and he will talk to us about improved communications .
   b) DSM University / Collaboration ECI. ECI has strong opportunities to collaborate. Not much progress yet. Hans will contact and discuss the topic with Hans de Keulenaer.
   c) Hans, Jos and Sea will continue to work on the topic,
   d) Website: challenges and progress. A lot of work has been done and is left to do. Site still difficult to work with, eg documents, once uploaded are locked and you can't change them. Shall we rebuild the website from scratch? A discussion for the exco
   e) Spotlight. Rob: Pam often doesn't have enough material for Spotlights. We will come with suggestions.
   f) Joss, Sea and Hans will work on Communications Plan, plus dissemination plans for each of the Tasks.
   g) TSO task. Rob is slightly worried where this is going, we need a proposal at the next ExCo meeting. May be something nobody has seen before which could mean we go back to the drawing board.
   h) Next steps tasks 16 – 17. Jan slowly coming back online, Jan Bleyl has organized an experts meeting. Matthias Stifter is looking at options for definition phase.
   i) Other new ideas? Extension for Task 24.
3) Membership: Follow up on contacts.
   a) India has changed contacts, we have a new contact.
   b) Barry Breedenkamp (South Africa) announced he will try to join the next meeting.
   c) New options? UAE
4) Next Exco
   a) Hans will support the pre-meeting workshop, Harry Vreuls is working on the content/

Agenda 3a.

DOCUMENT C

IEA DSM Programme Dissemination (The DSM University)

Hans Nilsson, Advisor
FourFact, Sweden

This report is submitted to the IEA DSM IA EXCO meeting in Utrecht, The Netherlands with a request for the EXCO to:

- Approve the Report
- Decide to proceed with the DSM University

Suggestions for the ExCo

Action Plan till autumn meeting 2013 to (under the supervision of the chairman):

- Take contact with organisations that have a pronounced interest in the matters (such as REEEP, CEM, NDRP) to find out (a) if they would be interested in some sort of cooperation to exploit our existing material in some form and (b) if they would be interested in development of new tasks.
- Develop actor-oriented combinations (packages) of existing material and check with e.g Energy Cities and the Mayors Initiative in Europe opportunities as above.
- Task 1 handbook should be revisited for purposes as mentioned above in text.
- Make a survey among interested on Facebook and Linkedin
- Find channels and hosts that could serve as outlets (we have the copper institute and RAP "in-house")

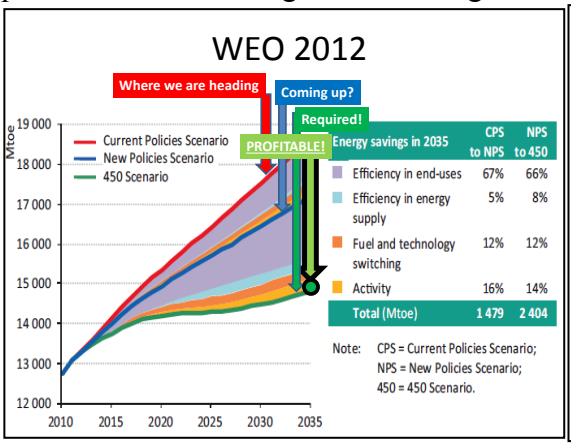
This will require extra time and some travel by the advisor. This is estimated to require a budget (from the common fund) of up to 40 000 USD including the present assignment.

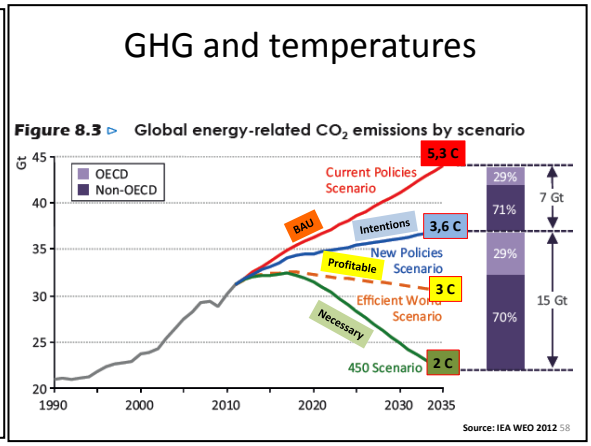
A DSM- university (why, who and what).

This document also pertains to the issue of the future strategy of the DSM-Programme

The challenge

There is according to several sources, such as IEA ETP 2012 and IEA WEO 2012, considerable profitable potentials for energy efficiency to harvest. Compared to present energy use the potentials are double-digit percentages. In a global scale there is also a growth forecasted, primarily in fast-growing and developing economies. A growth that can be partly offset by making use of Best Available and improving Technologies (BAT and BAT+) and by changes in behaviour (use of) technologies. Just by exploitation of what is already profitable the raise in global warming can be reduced.





This potential is growing for reasons of market changes. Prices of energy are generally rising and costs for energy efficiency technologies are declining with market growth and "market learning".[1] But the potential is also often systematically underestimated since:

- The perspective on releasing of the potentials are 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 underestimated
- The costs for energy efficiency improvements are overestimated since traditional views on energy efficiency is fragmenting and itemizing the changes (pick low-hanging fruits in merit order) instead of making holistic packages of connected activities
- Some costs (externalities) are not present in the supply side costs/prices to which energy efficiency is compared
- 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.

Observations:
(1) The handbooks created by Task 1 has covered some of these issues for purposes of evaluation but may have to be developed for "ex ante" studies and may have to be extended to cover the above.

[1] 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.

(2) The handbooks should be edited to serve as training material both in formal education, for distribution on the web and/or be developed to a web-based tool.

Information about the potential is (often) useless! The information about the profitable potentials is often received with a shrug since the assumption is that since the market and the actors on the market is rational it will be realised eventually and if it is not that is because there are hidden costs involved in search and transaction. Such costs do exist and part of the DSM activities is to reduce those costs and make the potential accepted by the actors. The result is achieved only when the suggested actions are accepted by the users.

Result = Potential * Acceptance

When acceptance is low the result also is. The problem is that only few act strictly rational.[2] It is, however, fair to make the calculations based on perfect rationality in order to determine the size of wasteful spending and in order to determine where, and for whom, there are chances are to make a better choice. But if we want to realise these potentials we have to turn to behavioural economics to find out how incentives can be shaped and make the actors do the rational thing.[3]

It is also quite obvious that old business models, in which energy is the main issue instead of the service (light, motive power and climate (heating and cooling)) that energy provides, are insufficient. Not the least when energy supply is also made available in smaller units that enables the users to also provide themselves with at least some of the energy they need.

The real task for the DSM-Programme is to find and communicate ways to raise the acceptance.[4] 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.

Observation:

(1) There is in several of the tasks material relevant to the issue of acceptance. There is material gathered that can be used to copy and/or inspire development of policies and incentives, see for instance Task 6 that is more general but also more specific cases in other tasks. Task 16 and 22 has example of business models that when applied raises the acceptance. Some of this material would lend itself to be promoted and made available by editing. Searching for and communicating good examples of business models might be a task in its own right.

(2) The new Task 24 is addressing the behavioural issues which are important to raise the acceptance.

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[2] "Empirically, actual choice behaviour commonly departs widely from the behaviour predicted by the axioms of perfect rationality. Moreover, decision making within business firms is heavily concerned with the discovery of choice alternatives, and frequently seeks satisfactory rather than optimal choices; whereas in neoclassical theory, alternatives are generally assumed to be given in advance and the goal is the optimum."

Behavioural Economics. Herbert A. Simon
http://ptfs.library.cmu.edu/awweb/pdfopener?sid=C20B92FA983CA6BA687CF5F4C5BB9ABA&ctm=1364841349334&md=1&attachment=yes

[3] Behavioural economists Richard Thaler and Cass Sunstein talk about "nudging" to help people find out the better solution. Daniel Kahneman reveals the mechanisms in his latest book "Thinking fast and slow".

[4] 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 more sustainable energy systems"*

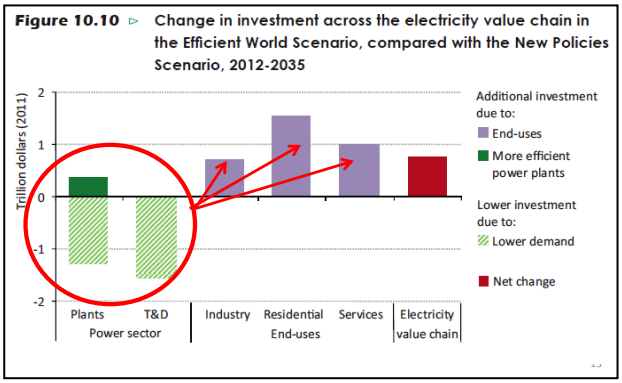
The mission is to: *"Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either facilitate operations of energy systems or facilitate necessary market transformations."*

(3) There might be an area in "behavioural economics" that deals with what some economists call "soft paternalism"[5] and also have implications for design of technologies, and that we should explore.

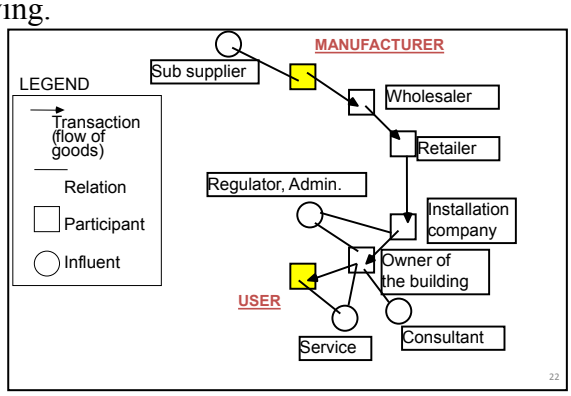
The market

There is generally among actors and institutions a common understanding about the issues, but less about the scale and benefits of such an operation 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 pattern to achieve the efficient world scenario. Resources have to be funnelled from the supply side to the demand side, see figure. Such operations may involve a change in priorities among actors and development of operational modes that not all of them find natural.



We normally address the demand side of market in a simplified manner as if there was a manufacturer (who should provide more energy efficient equipment) and a user (that should desire this new equipment). In reality there are many parties involved in the transaction, see example below. These may or may not be interested in a change that could benefit or threat their honest everyday living.



In principle we have to be able to address them all with material that could raise the acceptance for a change.

Observations:
(1) For some of the actors/stakeholders the issue is rather to understand the reasons behind the wish for a change and find a way to accommodate this in their normal business.
(2) There is also a case for change of business models as mentioned above. Some covered by Task 16 and 22, but there may be more to develop against the back-drop of e.g. smart grids?

[5] http://en.wikipedia.org/wiki/Soft_paternalism

Functions, Institutions and their appearances

We need to consider actor features in terms of how they can act for DSM locally in their daily work and based upon that try to find out how our existing and new products should be arranged to serve their purposes.
If we first look upon their general role and how they can be approached there are two categories.

1. The primary who represents those who finances our work and who performs DSM as a part of their daily work (decision makers, manages and programme responsible).
2. The secondary those who has their own missions (Initiatives, Missions and Research), but who can be co-workers and/or whose results can cross-breed ours.

Target Group	Should learn about	Via Channel	With Product
Decision makers	Costs and Benefits	• IEA Secretariat, • ExCo members, • Operating Agents	• Direct Contacts (supported by e.g. flyers) • Seminar presentations
Managers	• Organisations, • Governance, • Planning, • Methods	• Workshops • Newsletter • Journals (engineering and R&D) • Social Media	Articles (both on projects, tasks, and on crosscutting issues)
Programme responsible	"Tricks" of the trade		
Initiatives (e.g. IPEEC, CEM, IRENA etc.)	**THAT** IEA DSM exist and **WHAT** we can do together	• IEA Secretariat, • ExCo members, • Operating Agents	• Direct Contacts (supported by e.g. flyers) • Seminar presentations
Missions (ICLEI, Energy-Cities, etc.)			
Research and organisations (e.g. ACEEE, ECEEE, EnR)	What **material** that is available for their "inspiration" and how it connects to their work.	Assessment lists, surveys, active participation in e.g. summer studies, activation of members on social media.	

Another look on actors is trying to find out which institutions they represent in society and the function of those. There is a need to mobilise actors as catalysts and operators to release the profitable potential for energy savings. The catalytic actors may, depending on their role, interest and available instruments, act by making use of DSM to induce changes.
The IEA DSM Programme work has throughout the years addressed different aspects of the undertakings these actors have. This can be given a rough characterisation as in the table below where relevant task material has been indicated in the yellow areas.

Actor	**Function**	**Aim**	**Instrument**	
Government	Providing institutional setting and incentives	Welfare (including Security and Prosperity)	Law, Taxes, Subsidies, Information, Regulation	
	6; 1(9); 17; 21			
Municipalities	Specific institutions (e.g. planning, monitoring)	Fairness	Plans and activities within a given jurisdiction	
	9			
Utilities	Provider	Business (profit)	Energy	Energy Services
	11; 13; 15; 17; 19			

Supplier (hardware and services)	Provider	Business (profit)	Goods	14; 16; 20; 23
	24; 3			
User	-	Service (Light, Power, Climate)	-	
	7			

Some organisations/institutions have produced educational material of their own, see e.g. REEEP African Toolkit (http://africa-toolkit.reeep.org/). REEEP has taken one step further and also established a portal for knowledge management called REEGLE (http://www.reegle.info/) that also contains basic information about countries.

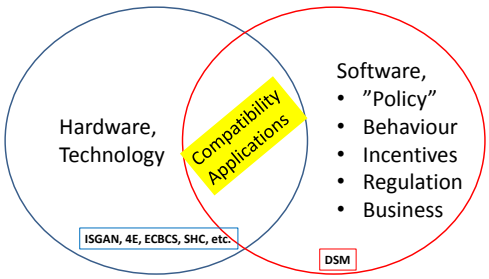
Observations:
(1) It is quite obvious that most of the DSM-Programme material is very specialized and in a form that may serve only specific actors for their specific purposes. Anyone coming in from the side will have problems to identify the usefulness.
(a) It might however in some cases be sufficient to rename a product giving it a more understandable title to help people finding out how applicable it is?
(b) Providing better abstracts and index-words would fill similar purposes.
(c) Rearranging the products and address them to different users according to the functions in society may be yet another way.

(2) For each of the categories mentioned in the tables above there should be established contacts with institutions in order to find out what material should be useful and how it should be organised for them.

What do actors really do?

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 represents technology perspectives that are related to DSM, such as other IAs within the IEA.



- **Municipalities** that to a growing extent engage in energy issues with the growing market for decentralized, small-scale, renewable energy even if the disengage in the traditional utility sector. In Europe the Mayors Initiative has grown tremendously. We have earlier had a fruitful operation with the organization Energy Cities (task 9).
- **Utilities** that have essentially withdrawn from our Programme and when they show an interest mostly do so in Load Shape work. For some of them the issues of integration (task 17) and those related to "smart grids" may however be of interest. Our relation to RAP is useful and solid.

- **Suppliers of hardware and service** that may be the big winners on the market for energy efficiency. These are however not very well organized and work primarily in niches defined by the technology they provide. Our new contacts with the Copper Association 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.

The actors may express their needs in the same terms but need to be supported differently because of their differences in function and in available instruments. The DSM-Programme have some advantage in this respect having produced material for e.g. regulators, policy-makers, municipalities, ESCOs etc.

Observation:
We have for our own purposes organised our work in 2 clusters which are described based on how the load is affected by the actions (Load shape and load level). This has some advantages also from a user perspective since many of them has an idea of what their problem is, either they have a congestion problem (load shape) which they want to cure with "Demand Response" or an environmental/economic problem (load level) that they want to cure with energy efficiency. But this description is not actor oriented. We may want to change our perception of clusters or add a more detailed analysis on who the actor is and what the actor-interest may be in order to address the output more properly.

Topics and tools (some ideas)

We may have lost some aspects on DSM applications since we have primarily been driven by the urgent need that our participants have voiced from time to time. This may have resulted in that some of our tasks have not been sufficiently practically oriented or, even when they have been, are not sufficiently accessible by a prospective user coming from the outside. Some areas where we may (or should) put more emphasis and create new work could be:

Planning

Instances that should decide upon DSM-measures or about the type and size of programs may need better tools. Possible 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 simple calculation 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 saving itself. Energy security and job creation are such.
- **Stakeholder positioning.** Many stakeholders are reluctant to enter more formal programs since they do not see the full impact of a change where 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 could be another case. Same applies to the distribution chain of goods for energy efficiency (see above under The market)

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

Future business

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.[6] We have 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. A subject that may be developed in collaboration with e.g. ACEEE who has a biennial conference on energy efficiency as a resource.
- **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 a cause to check these out in more detail and provide advice on applicability.
- **Incentivising to upgrade acceptance.** Since users are not fully rational some of the traditional incentives (subsidies, taxes, information) are not enough to "clear the market". Behavioural economist have detected some of the systemic errors we have when making decisions and also suggested methods (nudges) to overcome them.
- **Financing as part of a more general work on business models**
- **Technology and change.** How business (will) change with new technologies for e.g. ICT, local supply and smarter appliances.

Products, Outlets and "Events"

In the present strategy The Programme's products has been listed:

- 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.)
- Articles for professional journals
- Workshops and presentations at workshops and conferences
- Forums for dissemination and/or discussion with possible users, customers, decision-makers, etc.
- Growing pool of individuals and organisations in each country that develops new expertise in DSM issues and solutions
- Databases
- 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.

So far it is clear that our Publications are insufficient as tools. They need to be edited and probably remade completely to address user/actor interest and not only be result from an anonymous task.

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

Our presence on the web and social media (Facebook, Linkedin) is OK, but from a dissemination perspective the website is more like the library where you find what there is to find. On Facebook we have some communication and could probably do more.
We should try to be more aggressive in participating in workshops and advocating both DSM as an idea and DSM applications. DSM is however not the catchy buzzword it used to be for many audiences, but it may still ring with 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 would have similar needs.

Suggestions for the ExCo

Action Plan till autumn meeting 2013 to (under the supervision of the chairman):

6. Take contact with organisations that have a pronounced interest in the matters (such as REEEP, CEM, NDRP) to find out (a) if they would be interested in some sort of cooperation to exploit our existing material in some form and (b) if they would be interested in development of new tasks.
7. Develop actor-oriented combinations (packages) of existing material and check with e.g Energy Cities and the Mayors initiative in Europe opportunities as above.
8. Task 1 handbook should be revisited for purposes as mentioned above in text.
9. Make a survey among interested on Facebook and Linkedin
10. Find channels and hosts that could serve as outlets (we have the copper institute and RAP “in-house”)

This will require extra time and some travel by the advisor. This is estimated to require a budget (from the common fund) of up to 40 000 USD including the present assignment.

Agenda 4a. (41st meeting of the IEA DSM Programme)

Document D

Phase 3

Extension - Task 17 – Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages

Matthias Stifter

March 2013

The Task Status Report for an extension of Task 17 is submitted to the IEA DSM ExCo meeting with a request for the ExCo to:

- Approve the Task Status Report of the preparations for an extension of Task 17 Phase 3.

DSM Task XVII – Phase 3 – Definition
Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages

Author: Matthias Stifter (AIT)
Version: 2013-03-24 DRAFT v2

Introduction

Phase 1

Subtask 1: Information collection on the characteristics of different types of DER in the integrated solutions
Subtask 2: Analysis of the information collected and preliminary conclusions (state of the art)
Subtask 3: Feedback from the stakeholders: Workshop
Subtask 4: Final conclusions and the detailed definition of the further work

Phase 2

Subtask 5: Assessment of technologies and their penetration in participating countries
Subtask 6: Pilots and case studies
Subtask 7: Stakeholders involved in the penetration and effects on the stakeholders
Subtask 8: Assessment of the quantitative effects on the power systems and stakeholders
Subtask 9: Conclusions and recommendations of phase 2

Scope of Phase 3

The aim of this task is the exchange of experiences and developments in the field of integration with renewable energy and DSM in homes and buildings: technologies like PV systems, electric vehicles, electric storages, heat pumps, micro-CHP in combination with energy management systems and the possibilities for dynamic tariffs based on smart meters.
In this task, existing experiences of pilot projects which combine these aspects will be analyzed and discussed. The application and realization of successful projects in participating countries with respect to the specific regional differences and requirements are in the focus.
In the private sector, the maximization of the local use of renewable energy will be more and more important. This shows actual developments of various incentive schemes like in Europe. The flexibility and the adaption to the generation is an increasing important factor for a successful integration. Especially electric vehicles have high potential for demand side management, since they have to be charged from renewable energy. There are fast developments – in the standardization (CEN/CENELEC/IEC) and in the electric energy economic market (e-laad.nl, www.amp.at).

The following subtasks structure the activities:
- Subtask 10: Role and potentials of flexible households and buildings
- Subtask 11: Changes and impact on the grid and market operation
- Subtask 12: Sharing experiences and finding best practices
- Subtask 13: Conclusions and recommendations

Subtasks

Subtask 10 – Role and potentials of flexible consumers (households and buildings)

Objectives
Assessing the concepts and implementations of customer energy management systems (CEMS) in different (participating) countries:

- Comparing specific requirements in households vs. functional (office) buildings
- Energy balancing possibilities and potentials
- Role of Smart Meters (SM) and (CEMS) – in the terms of technical concepts

Technologies:
In order to enable DSM, existing functionality and requirements of SM and CEMS according to the specifications (M/441, country specific) will be analyzed as following:

- Local balancing / local markets of the generated power/energy with the consumption
- Controlled charging and discharging of EV
- Integrating electrical storages
- Support aggregation to participate in markets and grid operation.

Country Experts:
Have to provide specific information about ongoing functional requirements of CEMS platforms in conjunction with smart meters and their role in market and grid participation. Innovative applications in projects and pilots will be projected to future developments by discussing penetration scenarios based on previous subtask 5.

Operating Agent:
Provide a semi-structured guided discussion and analysis of the country specific inputs. A methodology for generalized application and estimation of DSM potential in the future based on the provided data will be developed.

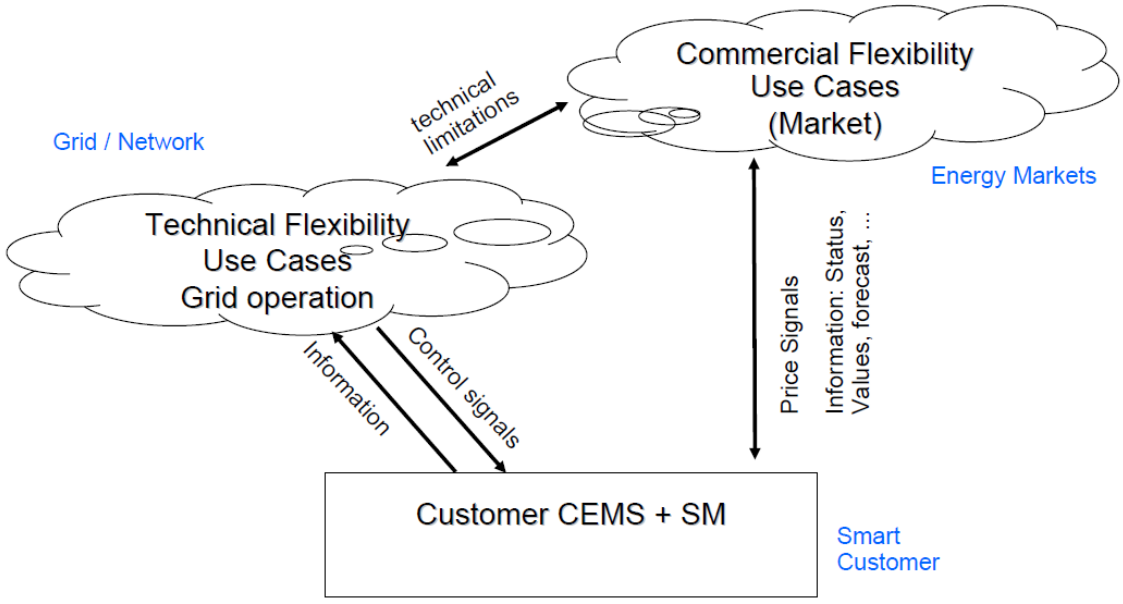


Figure 1: Providing network user's flexibilities [1]

Subtask 11 – Changes and Impacts on the grid and market operation

Objectives:
Quantification of impact on grid and market operation based on technology penetration scenarios developed in subtask 5.

- Improvement on grid operation
- Customer benefits
- Optimization potentials
- Methodology to estimate potential and to cost effective activation.
- Regulation issues for grid and (local) market operations

Interaction:
How do CEMS interact with flexibility operators (aka. aggregators)?

- Impact on the grid operation (technical flexibility)
- Impact on the market (market flexibility)
- Technical feasible but optimization necessary:
- Requirements for establishing this grid operating and market mechanisms? – regulatory and legislative
- Installation and operation costs vs. delayed network investments.

Country experts:
Provide data and information to support the analysis of the impact on grid and market operation. This should include information from distribution network operators, system operators, energy trading and market operators.

*Operating agen*t:
Analyze the country specific information and summarize the information for general recommendations, also based on the quantified effects of subtask 8.

Subtask 12 – Sharing experiences and finding best practices

Objectives:
Based on the collected pilots and case studies from the previous subtasks the results and findings of the finished projects in term of successful implementations, barriers and effectiveness will be analyzed.

- Lessons learned from existing pilots: Workshops (E-Energy, EcoGridEU, …)
- Comparisons and analysis of country specific differences in the implementation
- Assessment and development of a methodology to apply different DSM mechanism to individual countries.
- Extrapolation of the results from previous collected projects on applicability.

Knowledge sharing (Country experts and operating agent):

- Successful DSM projects in International context and EU context.
- Knowledge and exchange of experience – best practices

Subtask 13 – Conclusions and Recommendations

Recommendations will be based on the experts' opinion and will at least provide a ranking based on impacts, costs and likely future penetration of the technologies.

Operating Agent and Country Experts
Final Reports: Conclusion and recommendations

Task deliverables

- Subtask reports and final report
- Workshop proceedings

Time schedule

IEA-DSM TASK XVII - Phase 3	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14
Subtasks								
Subtask 10 - Role and potentials of flexible consumers								
Subtask 11 - Changes and impact on the grid and market operation								
Subtask 12 - Sharing experiences and finding best practices								
Subtaks 13 - Conclusion and recommendations								
Expert meetings								
Biannual country expert meeting								
Workshops								
Workshops with stakeholders and experts								
Reports								
Subtasks reports								
Final report								

Estimated budget and resources needed

Operating agent (cost shared)
The administrative efforts for the operating agents are travel costs and personnel costs / resources necessary for editing and analyzing country specific inputs for the reports. This will be covered by the task fee:

- 16k€ per participating country for the whole task (8k€ per year).

16k€ per country for the whole task covers the estimated 20k€ fix costs for administrative efforts and travel costs and the variable efforts for the country specific content which is approximately 13k€ per country. It is assumed that the minimum number of participating countries is 5.

Country experts (task shared)
The estimated resources needed for the inputs of the country experts are between 1 and 2 person month.

References

[1] Mandate on Smart Grids, M/490, *Smart Grid Standardization and Practice,* CEN/CENELEC, DKE, VDE

Agenda 4b. (41st meeting of the IEA DSM Programme)

Document E

Task 23
Role of the Demand Side in Delivering Effective Smart Grids

Task Status Report
March 2013

Linda Hull
EA Technology, United Kingdom

The Task Status Report of Task 23 is submitted to the IEA DSM ExCo meeting with a request for the ExCo to:

- Approve the Task Status Report

International Energy Agency

IMPLEMENTING AGREEMENT ON TECHNOLOGIES AND PROGRAMMES FOR DEMAND SIDE MANAGEMENT

Task 23
Role of the Demand Side in Delivering Effective Smart Grids

Task Status Report
22 March 2013

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CONTENTS

1. SUMMARY

The aim of the new Task is to identify and where possible quantify the risks and rewards associated with Smart Meters and Smart Grids from the perspective of the consumer, both now and in the future. By identifying the potential risks and rewards the Task would seek to develop best practice guidelines in order to ensure the demand side contributes to the delivery of effective Smart Grids.

From the point of view of ordinary users, who are uninterested or unable to play an active role either on the generation or the demand side, a Smart Grid may look like a plain traditional network, to which a number of time-variable, non dispatchable generators have been added, but one that needs costly and sophisticated technologies in order to deliver an acceptable service (equal at least to the one supplied by the original network). Thus, a first step in the effective deployment of Smart Grids needs to involve the engagement of customers so that they understand that a Smart Grid is instrumental to the implementation of certain measures (renewable generation, efficiency, demand response) that facilitate the reduction of greenhouse gas emissions and make the use of energy a sustainable activity. In this perspective it is important for every user to the able to take advantage of the "smartness" of the Grid, otherwise customers will simply end up paying the cost of the Smart Grid without receiving any of the benefits.

At the 37th Executive Committee Meeting, held in Washing in April 2011, the Executive Committee members decided to initiate the Task. The members unanimously approved Linda Hull to be the Operating Agent for the Task.

2. PROJECT WORK PLAN

Task 23 comprises the following Subtasks:
(*For a complete description of the scope of each Subtask and its associated activities, See the full Proposal within the Pre-Meeting Document for the 37th Executive Committee Meeting, held in Washington D.C., USA, April 2011)*

Subtask 1 Impact of energy markets on the role of customers
There are many stakeholders in the energy market with different interactions with consumers and different responsibilities. This subtask would map the interactions of different stakeholders in a 'market map' for each participating country, with the consumer as the central focus. This could include power and information flows and responsibility (e.g. for billing and metering). Ownership of data may also be an important issue from the consumer perspective and so the current situation in each country will be shown on the map.

Outputs to include:
- Market map for each participating country
- Analysis of impact of different market structures on Smart Grid implementation from the perspective of customers

Subtask 2 Interaction between technology and customers
There a number of technologies associated with the Smart Grid concept including Smart Meters, electric vehicles, heat pumps, micro-generation and energy storage as well as the control and communications needed to actively manage end-use consumption. The way that customers use and relate to these technologies has a significant impact on their ability to contribute towards an effective Smart Grid.

This subtask will draw upon the available information on Smart Grid enabling technologies in order to consider the appropriateness of these technologies, both from the customer perspective and the Smart Grid industry perspective.

Outputs to include:
- Summary of experiences of customer interactions with Smart Grid technologies
- Analysis of TRLs and MRLs of selected technologies and the impact on Smart Grid deployment.

Subtask 3 Identification of Risks and Rewards associated with Smart Grids
This subtask will identify the possible risks and rewards relating to the Smart Grid concept from the consumer perspective. Each of these risks and rewards are influenced by a number of stakeholders for which the Smart Grid can meet specific needs and requirements.

Outputs to include:
- Map of risk and rewards from perspective of customers
- Report chapter (s) detailing risks and rewards from perspective of customers

Subtask 4 Defining offers and programmes (tools) to help ensure Smart Grids meet needs of customers
The effectiveness of the Smart Grid can be improved by engaging with the demand side. In order to engage with consumers and achieve their "buy-in", the Smart Grid should provide tangible benefits to customers themselves. This could include direct benefits associated with Smart Grid deployment, or additional functionality or services which represent "added value" to the consumer.

This subtask will draw upon the work that has already been undertaken in this area, and will focus on highlighting the costs and benefits associated with different approaches that have been adopted. For example, the benefits of mandating vs the ability to opt-in to a program will be considered, and the trade off between the level of functionality included within smart meters as standards against the risks and rewards for customers.

Outputs to include:
- **Overview of Smart Grid experiences from the perspective of customers**
- **Best practice approaches**
- **Report chapter(s) identifying tools to ensure Smart Grids meet needs of customers**

Subtask 5 Helping customers to actively engage with Smart Grids – Synthesis and Dissemination of Findings
The main objective of this activity is to understand how the findings of subtasks 1 to 4 come together, and disseminate the results via a series of regional workshops organised and delivered by the Task participants. Thus, this subtask will identify the key issues that impact on the way customers interact and view Smart Grids. This will include the impact of market structure, the role of technology, the ability for customers to realise any potential rewards whilst minimising the risks, and the effective deployment of tools and measures indentified in subtask 5. Thus this subtask will focus on the factors that need to be addressed in order to ensure Smart Grids are able to achieve their full potential by ensuring that all industry stakeholders, including customers, benefit from their deployment. This subtask would include an industry workshop, to which a wider group of cross-industry stakeholders could be invited to discuss the results and findings of the Task.

Outputs to include:

- **Cross-sector workshop**
- **Workshop proceedings**
- **Final report**

3. OBJECTIVES FOR THE LAST SIX MONTHS

The objectives for the next six months are to continue to progress Task 23, specific tasks are:

- Complete Subtask 1 report
- Complete Subtask 2
- Commence Subtasks 3 and 4;

4. PROGRESS AGAINST OBJECTIVES

Participation
At the 37th Executive Committee Meeting in Washington, a total of 10 countries expressed various levels of interest in joining the Task.

Since then, participation letters have been sent out to all Executive Committee members. There have been a number of positive responses indicating a 'positive intent' to participate in the project from a number of countries. By the middle of June 2012, South Korea, Norway, Sweden and the Netherlands had signed and returned their National Participation Plans confirming their intention to participate in the project, and also signed a letter of engagement or contract with EA Technology.

By mid-June the project had four confirmed project participants – the minimum number required for project commencement. Thus work on the project commenced in June 2013.

Following strong interest from a number of UK stakeholders, effort to establish a UK national team continued. By November 2013, sufficient interest had been secured to formalise UK's participation in the Task.
There is still strong interest from UK energy suppliers and network companies, and the process of securing funding to establish a UK national team is on-going.

The current status of Task 23 participants is summarised below:

	Participation	Letter of participation	Task Expert
Korea	Confirmed	Signed and returned to EA Technology	Appointed
Norway	Confirmed	Signed and returned to EA Technology	Appointed
Sweden	Confirmed	Signed and returned to EA Technology	Appointed
Netherlands	Confirmed	Signed and returned to EA Technology	Appointed
UK	Confirmed	Signed and returned to EA Technology	Appointed

A draft legal annex text was prepared and circulated to the participating Executive Committee members for comment at the beginning of July. To date, no comments or feedback has been received.

Experts meetings
To date, two Experts Meetings have been organised and delivered. The first was held on 25th & 26th June, in Chester, UK. The second was held on 11th October, and was organised to follow on from the Task 24 workshop held in Oxford on 9th and 10th October.

Date	Place	Total Experts	Type of meeting	Government	Industry	Academic
25th – 26th June 2012	Chester, UK	9	Experts meeting	1	8	0
11th October 2012	Oxford, UK	8	Experts meeting	1	7	

In addition to these 'face-to-face' meetings, web-meetings are held approximately 6 to 8 weekly intervals, to discuss progress with the National Experts meetings. These are an extremely valuable way of maintaining contact with the National Experts.

Subtask 1
The draft Sub-task 1 report was completed at the end of September 2012, and following review by the Task Experts was released to the ExCo for approval in January 2013. The report is now approved and a copy has been circulated to the participating ExCo

members, the National Experts. A copy is also stored on the secure area of the Task 23 website.

The Report represents the first step towards understanding the extent to which consumers might be motivated to actively engage in Smart Grids. It underlines the importance of the electricity market structure on the role of consumers in delivering effective Smart Grids. The aspects that have a direct influence on willingness and ability to play an active part in the delivery of Smart Grids are highlighted. This report demonstrates that the impacts on consumer willingness to actively engage in activities to support Smart Grids are wide ranging and to a large extent, poorly understood.

For example, there is a growing body of evidence to show that better feedback of information to consumers will improve consumer awareness and motivation to change behaviour. However, little is understood about how best to convey this information to consumers, whether it should be mandated through a 'one-size-fits-all' approach or whether the desired outcomes can better achieved through voluntary innovation.

Similarly, there is a growing body of evidence to demonstrate that time of use tariffs provide a strong financial motivation to consumers to change their pattern of consumption. When this is coupled with suitable technology, the response can be greater. However, little is still known about how these tariffs should be implemented – should they be mandated for all consumers or should the market decide how best to make them attractive to consumers.

Consumer perceptions of stakeholders is also considered to be an important aspect of engaging customer participation in Smart Grid initiatives. This is, in part, influenced by the checks and balances that are put in place to ensure that the needs of consumers are protected. For example, are data privacy concerns addressed adequately.

Lack of trust by consumers in the electricity industry could limit or restrict consumer willingness to engage in new, innovative products and solutions. There are many instances of consumers' negative views towards the electricity industry, a selection of which are listed below for illustrative purposes.

A sample of consumers from the UK were asked to comment on whether or not they thought that the energy industry was doing a good job[7]. Responses included:

> *"I don't think they do a good job"*
>
> *"When wholesale price of gas goes down they are very slow to reduce their prices"*

[7] Energy on the Street, EA Technology and Energy Networks Association (ENA) commissioned Vox Pop entitled part of the Network 2012 Conference event, accessible via http://www.youtube.com/watch?v=mOENmZC-3yo

"I have doubts about whether they need to put prices up like they say they do"

A survey was also carried out by a consumer group to explore consumer attitudes to energy and the energy industry in GB. The results of this survey highlighted a lack of trust and widespread negativity towards the industry. Energy suppliers were perceived as "*running a 'monopoly' to maximise profits at the expense of consumers"*. Price rises in the years leading up to the survey are considered an important factor here.

The unbundling of electricity markets and the introduction of competition means there are more stakeholders in the electricity market than ever before. For example, the review of electricity markets in the participating country shows that the number of energy retailers can often exceed 100. As a result, consumers are sometimes confused by the role of the various market stakeholders, which can make the development of new innovative products by new market entrants more challenging.

Subtask 2

The original intention of this Subtask was to focus on the interaction of consumers with technologies, but the scope was increased to include four intervention types. These are:

- Time of Use tariffs
- Control (remote / automatic)
- Feedback of information
- Advice

Work is progressing well, and the following activities have been completed.

- A total of some 40 case studies that involve the target customers, end-use loads and intervention types have been identified. Results are available for only around half of these, with the remainder at too early a stage.
- Work is on-going to collate the learning from these case studies using a case study template to focus on customer perspectives.

To supplement the case studies, a review has also been undertaken of surveys of customer attitudes towards energy efficiency, demand response and related issues. This will supplement the case studies to provide a greater insight into customer willingness and ability to engage in Smart Grid related activities. To date, the results of around 20 surveys have been reviewed, most of which relate to UK consumer perspectives, with a limited number available for other countries. Most of the studies concentrate on the electricity industry, but some look at attitudes in other complementary sectors.

Some of the findings of these surveys demonstrate that;

- Consumers do not always understand the role of the various market stakeholders;
- Consumers do not always understand the most effective ways to save energy – for example, they often focus on the wrong things or under or over-estimate the effect of any measures they undertake;

- Consumers are generally unaware that the price of (wholesale) electricity varies across the day (and potentially across the seasons);
- There is little or no awareness of the impact of peak electricity consumption;

The data collated provides a useful foundation for understanding how customers assess risks and rewards.

Subtask 3
Work has commenced on Subtask 3, to assess the risks and rewards associated with active engagement in Smart Grids from the perspective of customers.

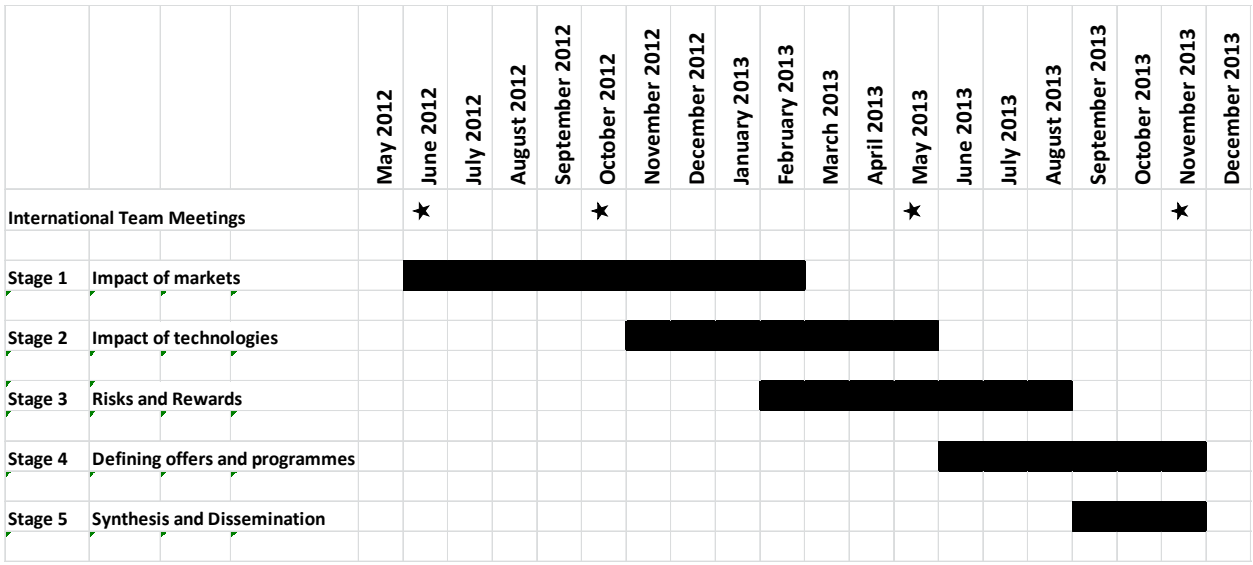
The early analysis shows that customers do not assess risks and rewards on an economically rational basis. In particular, studies show that

- Customers are risk averse, and so the 'pleasure' of winning $100 is not equivalent to the 'pain' of losing $100.
- The way that an offer is framed has a significant influence over the choice that is made. In particular, if an offer is expressed in terms of gains, customers tend to be risk averse. However, if the same offer is expressed in terms of losses, customers tend to be risk seeking.

As such, it is likely that it will be very difficult to pursue a quantitative approach to evaluating risks and rewards. In particular, any risk/reward quantification is likely to be valid only for a particular group of consumers in a particular context – the results will not translate to other scenarios making the results of limited use. Thus, it is likely that the project will not focus on pursuing the original goal of the subtask in terms of the production of a 'calculator' to enable risks and rewards to be calculated. Instead, it is likely that the, programme of work will focus on a qualitative approach, identifying the risks (i.e. what customers are worried about, and what might prevent them from actively engaging in Smart Grid activities) and identifying what customers consider to be benefits (i.e. what might help motivate them to participate in Smart Grid activities). The National Experts are currently considering what specific questions they would like subtask 3 to answer from their perspective.

5. WORKPLAN FOR THE NEXT SIX MONTHS

The timing of the Tasks has been realigned as shown below.



6. FINANCE

The budget for Task 23 is set at £279,220 based upon five participating countries. Thus, the financial contribution per Participant will be £55,844 (based upon five Participants).

In the event of more than five Participants, the financial contribution per Participant will be based on the total Operating Agent's budget of £279,220, divided pro-rata by the number of Participants.

In the event of less than five Participants, the individual Participant financial contributions shall be maintained at £55,844 per Participant and a reduced programme-of-work shall be agreed accordingly, subject only to a minimum of four Participants supporting the Task.

If a Participant decides to join the Task once work has commenced, the Operating Agent reserves the right to revisit the costing shown above. If necessary, the total costing will be adjusted to reflect any additional administrative or project management costs associated with incorporating the additional Participant. These revised costs will be agreed with existing Participants.

To date, payments have been received from all five participating countries, as stipulated in each participant's letter of engagement.

Expenditure is in line with expected for project status.

7. MATTERS FOR THE EXCO

- Approval of the Task Status Report

Agenda 4c. (41st meeting of the IEA DSM Programme)

Document F

Task 24
Closing the Loop – Behaviour Change in DSM: From Theory to Practice

Dr. Sea Rotmann – New Zealand
Dr. Ruth Mourik - Netherlands

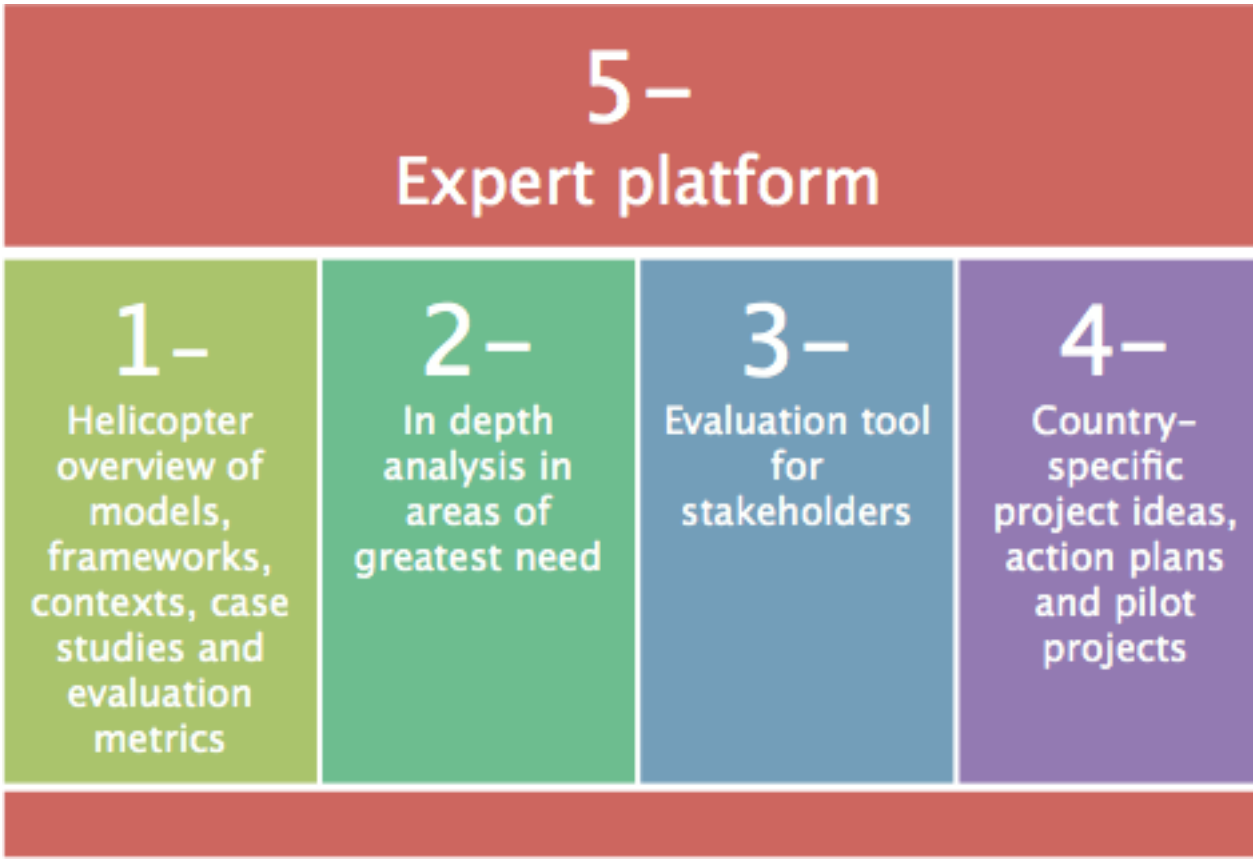
This Task Status Report is submitted to the IEA DSM ExCo with a request to:

- Approve the Task Status Report.

INTERNATIONAL ENERGY AGENCY

IMPLEMENTING AGREEMENT ON TECHNOLOGIES AND PROGRAMMES FOR DEMAND SIDE MANAGEMENT

Task 24: Closing the Loop - Behaviour Change in DSM: From Theory to Practice



3rd Task Status Report April 2013

Dr Sea Rotmann, Operating Agent, New Zealand drsea@orcon.net.nz
Dr Ruth Mourik, Operating Agent, Netherlands info@duneworks.nl

Prepared for the EXCO meeting in Utrecht, April 24-26.

SUMMARY

Task 24 went from strength to strength over the last 6 months. We are continuing to attract experts from all over the world who are currently supplying us with case studies for Subtask 1 (over 25 have already been collected from 10 countries). Italy has inofficially confirmed their participation in the Task, and Sweden has officially joined in December 2012. Austria is currently supporting the Task with in-kind expertise, but we are hoping that a successful budget bid will mean that Austria might join mid-year as well. The UK has also continued to support the Task in-kind, with two experts visiting New Zealand for the Task workshop and supplying case studies and other support (including the framework to analyse the case studies) to Subtask 1. Finally, Spain also started to contribute in kind and by supplying case studies. in addition, a Spanish developer is now interactively developing new smart metering technology based on published material and interaction with experts in our task. And a working visit is planned to the Energy Savers UAE to work on disseminating and collecting material for the Task and engage a wide range of UAE energy stakeholders with the Task and the Implementing Agreement.

In addition, we held two more highly successful national stakeholder workshops, one in the Netherlands in December 2012, one in New Zealand in February 2013. Over 70 experts from all energy sectors contributed and participated in these workshops. The online expert platform is also growing organically - we currently have over 150 experts from 20 countries signed onto the platform. All content generated by the Task is posted here. A wiki has been developed to enable better content management, analysis and collaboration for the Subtasks.

The Task is highly publicised in social media, via several blogs, columns, the weekly Behaviour Change and Energy newspaper, the IEADSM twitter feed, the Co-Operating Agents' twitter, facebook and linkedin profiles and word of mouth. We have also successfully 'matchmaked' several experts with one another, including across international borders. The Task was presented at the NERI conference in Wellington, February 13 and through an ExCo delegate at the IEA 'Choices, Decisions and Lifestyles Roundtable' in Paris March 13th.

The main issue facing the Task was with regards to Belgium's difficulty to honour their participation payments in 2012. However, thanks to the strong support and ongoing work of our Belgian ExCo member, these issues seemed to have been resolved.

PROJECT WORKPLAN

There is no behaviour change 'silver bullet', like there is no technological silver bullet that will ensure energy efficient practices. Designing the right programmes and policies that can be measured and evaluated to have achieved lasting behavioural and social norm change is difficult. We believe that this Task, and its potential extension, will help address these difficulties and come up with guidelines, recommendations and examples of best (and good) practice and learnings from various cultures and contexts. We rely on sector-specific experts (researchers, implementers and policymakers) from participating and interested countries to engage in an interactive, online and face-to-face expert platform and contribute to a comprehensive database of the variety of

behaviour change models, frameworks and disciplines; various context factors affecting behaviour; best (and good) practice examples, pilots and case studies; and guidelines and examples of successful outcome evaluations. The Task has several deliverables, the most important being the expert network and platform for continued exchange of knowledge and successes.

Task aims and objectives

The main objective of this project is to create a global expert network and design a framework to allow policymakers, funders of DSM programmes, researchers and DSM implementers to: I. Create and enable an *international expert networ*k interacting with countries' expert networks II. Provide a *helicopter overview* of behaviour change models, frameworks, disciplines, contexts, monitoring and evaluation metrics

* Provide *detailed assessments* of successful applications focussing on participating/sponsoring countries' needs (smart meters, SMEs, transport, building retrofits)
* Create an internationally validated *monitoring and evaluation template*
* Break down silos and *enable mutual learning* on how to turn good theory into best practice

Deliverables are broken down in Table 1 below (revised and based on 8 participating countries).

Phase / Duration of the action (in months)	preparation	1-2	3-4	5-6	7-8	9-10	11- 12	13-14	15-16	17- 18	19- 20	21- 22	23-24	25-26	27-28	2
Subtask 0: Management of the task																
0.1 Set-up an advisory board																
Workshop to finalise task definition in Austria/NL plus VC, 6-monthly ExCo meetings. Annual Advisory Board (AB) meetings	Kick-off WS AUT/NL			ExCo	AB		ExCo		AB	Ex Co			ExCo	AB		E
Subtask 1: Helicopter overview of models, frameworks, contexts, case studies and evaluation metrics																
1.0 Development of template to analyse models, frameworks and evaluation metrics																
1.1 Inventory of available models, frameworks and disciplines and analysis of applicability of models in differing contexts																
1.2 Deliverable on definitions of models and frameworks and their contextual applicability																
1.3 Build-up and continuous updating of database (wiki style)																
Workshops in BEL (August 2012) and UK (October 2012), summary in NZ workshop (February 2013)			WS Bel/UK	Web	WS NZ											
Subtask 2: In depth analysis of topics of particular interest to participating countries																
2.1 Detailed characterisation of targeted cases and development of case study template																
2.2 Collection and analysis of case studies for different selected sectors, themes and countries with inventory of key context factors and success stories and learnings. Insert in database developed under ST1.3																
2.3: Development of deliverable on context factors influencing DSM activities in topics of particular interest to participating countries																
Workshops and webinars in BEL and UK (same as in ST1), New Zealand (February 2013) and Norway (May 2013)			WS Bel/UK	Web	WS NZ	Web	WS NO									
Subtask 3: Evaluation Tool																
3.1: Identifying relevant indicators/metrics/tools for monitoring and evaluation of DSM project and programmes																
3.2 Assessing context sensitivity of indicators/metrics/tools, dependent on stakeholder needs																
3.3: Developing and testing monitoring and evaluation tool																
Workshops Norway, Switzerland, Sweden (and Italy if it joins)							WS NO	VC	Web	WS CH			WS Swe	VC	WS Ita	
Subtask 4: Country-specific project ideas, research priorities, to do/not to do lists and ideas for pilot projects																
4.1 Development of stakeholder-tailored to do's and not to do's for successful context (country) sensitive implementation, monitoring and evaluation of DSM projects on selected topics and target groups (i.e. smart metering, SMEs and transport)																
4.2 Development of country specific research priorities, project ideas and pilot plans - to be put in practice if task extension is approved																
4.3 Dissemination of to do's and not to do's																
Workshops Switzerland, Norway, New Zealand and others if other countries become participants					WS NZ		WS NO			WS CH			WS Swe	VC	WS Ita	
Subtask 5: Social media expert platform																
5.1 Overall coordination of the project																
5.2 Design of a Stakeholder Engagement Plan																
5.3 Design of the online platform and specification of its individual components in consultation with experts																
5.4 Utilisation of ongoing expert platform																
Workshop to finalise task definition in Austria/NL plus VC, ExCo meeting sign-off in Norway April 18, 2012. Ongoing online interaction	Kick-off WS AUT/NL	Web	Web	Web	Web	Web	Web	Web	Web	Web	Web	Web	Web	Web	Web	W

Detailed Deliverables (based on 8 participating countries)

Subtask	#	Deliverable name	Type of deliverable	Month of completi
0	D0	Advisory committee, Task Management	• Network, annual meetings, governance • Annual reports, ExCo updates, flyers, Spotlight articles, conference presentations, scientific papers, blogs, columns, tweets, publicity, networking, engagement with IEA Secretariat and other DSM groups and implementing agreements	ongoing
1	D1	Database/wiki listing collected models, contexts, evaluation metrics and a list and short descriptions of DSM policies, programmes and projects	a. database/wiki with an inventory of what diverse (sub) disciplines have to offer both empirically and theoretically; and an inventory of evaluation metrics and contexts affecting behaviour change b. an overview of different definitions used in the field c. list of experts working with different models of understanding - 2 templates that have been filled in with > 20 'models' and > 25 descriptions of DSM work in 4 themes - framework/navigation tool for stakeholders to evaluate models for diverse uses • list of DSM grey literature in participating countries • filmed interviews with DSM experts highlighting issues central to diverse models of understanding • filmed short presentations by national experts on models of understanding they have provided • 'tweetable' (ie 140 characters or less) definitions of each model of understanding • positioning paper for Brussels and Oxford workshops	12 but continuing thereafter
1	D2	Final 'report' on work in ST1	Interactive format, including film, graphics and interviews, tweets and podcasts as well as framework, tables and lists	12
2	D3	Surveys and post-evaluation of detailed case studies in 4 topics of particular interest to participating countries	1. Report/interactive feedback 2. List of interview questions for case study surveys 3. Filmed interviews with some case study stakeholders 4. List of detailed case studies in participating countries and how certain models have contributed to a better understanding of DSM and behaviour change 5. special attention will be put on evaluation to be fed into Subtask III 6. Best practices of participating countries will be publicised 7. Country-specific context factors and key approaches to solving contextual issues on the local, regional and national level	16
3	D4	Tool to evaluate 'successful outcomes' of DSM programmes	Interactive tool based on what works best for various stakeholder needs	24
4	D5	To do's and not to do's, priority research areas and ideas for pilots and projects for participating countries and stakeholders	· Country-specific briefs and other formats · Stakeholder analyses in participating countries · Stakeholder engagement plan	30

Subtask	#	Deliverable name	Type of deliverable	Month of completi
5	D6	Social platform and meeting place for DSM and behaviour change experts and implementers	· Online social media platform for collaboration and dissemination · List of global experts, their bio, field of expertise and ability to engage with them · Face-to-face workshops in participating countries publicising countries' DSM successes and sharing learnings	ongoing

OBJECTIVES FOR THE LAST 6 MONTHS

* **Subtask I - Helicopter Overview**:
- Overview of definitions used in Subtask I including how they were derived
- Templates to collect models and case studies completed and filled in by national experts
- Inventory of models, countries and domains that were collected
- Framework to categorise templates adapted from Chatterton and Wilson (2011)
- Wiki to collect and analyse templates
- Interviews with energy professionals telling their 'energy stories'
- Energy stories from participating countries
- 2 national Workshops to continue discussion on models of understanding behaviour

* **Subtask V - Expert Platform**:
- Continued growth of experts to the platform
- Utilisation of platform, including uploading all content from workshops and Subtasks
- Connect Wiki to platform
- Foster engagement and 'matchmaking' among experts
- Stakeholder engagement plan
- Publicising of Task 24

* **Subtask 0 - Administration**:
- Advisory Group invitations sent out
- ExCo meetings and report-back
- National expert workshops and webinars

PROGRESS AGAINST OBJECTIVES

* SUBTASK I

Overview of definitions

It is important to explain the approach and terminology used in the context of this IEA DSM Task and the policies of its participating countries. The target audience for this task is *not the energy end user*, but the *end user of behaviour change* ***research***. We therefore aim not at changing energy using behaviour *per se*, rather, help improve policymaking and programme design by intermediaries who have this goal, via on the one hand offering them better insights into how to turn good theory into practice and on

the other hand provide research developers better insight into how to frame and develop research that is being seen as useful in practice and policy. Feedback from workshops in Brussels and Oxford made it apparent that we needed to develop clear definitions for Task 24, particularly for *Demand Side Management*, *Energy Behaviour* and *Behaviour Change*. The definitions, and the thought process behind them, are summarised here: http://www.slideshare.net/drsea/definitions-for-task-24

Templates to collect models and case studies

Initially, two templates were created and started to get used to collect models of understanding and case studies in policy, programmes and pilots separately. After discussion with the national experts and review of several UK reports on behavioural models, the decision was made to combine the two templates into one and collect information on models of understanding behaviour or theories of change with the examples of actual cases in the participating, and other interested countries.
The collected templates (so far more than 25 have been collected from 10 countries in all 4 domains transport, SMEs, building retrofits and smart metering) can be found here:
https://www.dropbox.com/sh/uhdl2aam37dig5y/N9W3xOQYf6
An overview of the various models of understanding and theories of change (and what the distinction means) can be found here: http://www.slideshare.net/drsea/helicopter-overview-of-behaviour-change-models

Inventory of models and case studies collected

A ('living') table with all countries, cases, models and domains that have been collected can be found here:
https://www.dropbox.com/s/jsvgp45f30y7zsr/Table%20Domains-Countries_Cases_models%20and%20theories.doc
It will be linked to the Wiki, where each box in the table will open the actual case study. The Wiki will also function as a first-cut analysis, where cases can be compared and contrasted between:
- Countries
- Models or theories used
- Domains studied
- If they were Government (top-down) or Business or Community (bottom-up) interventions

Wiki to collect and analyse case studies

A Wiki was developed and integrated into the Expert Platform - ie the same login and password can be used to access the Wiki (www.ieadsmtask24wiki.info). It contains all case studies collected so far and will be used as the main content management tool for Task 24.

Framework to categorise templates

At the Oxford workshop on October 9-10, UK scientists Charlie Wilson and Tim Chatterton presented their framework to categorise behaviour change examples (see Table 2 below). It was decided, in collaboration with the attending experts, to adapt and utilise this framework for Task 24. Tim Chatterton attended the NERI conference and Task 24 workshop in February in New Zealand and worked with the NZ Operating Agent on adapting the framework to some examples collected using the Task 24 templates. These examples can be found here:

https://www.dropbox.com/s/y5807g4ai28oo2g/Framework%20Examples%20worked%20with%20Tim.xls

Table 2. Framework developed by Chatterton & Wilson (2011)

ACTOR	Individual	Inter-Personal Network	Community	Segment/ Group	Population
	Who, or what is enacting the behaviour?				
DOMAIN	Cognitive	Bodily	Tech-nological	Institutional / Social	Infra-structural
	What are the influences on the behaviour?				
DURABILITY	One-off	Repeated	Dependent	Enduring	Norm-Setting
	What relationship does time have with the behaviour?				
SCOPE	Discrete	Inter-Related	Bundled	Structuring	Lifestyle
	How does the behaviour relate to other behaviours?				

Developed from
Wilson and Chatterton (20

Individual 'energy stories'

We have now filmed almost 30 energy efficiency professionals' personal energy stories, as told in their own words. These professionals from all energy sectors talk about the way they use energy in their own lives, what they are particularly vigilant about, what they are proud of and what they think and wish they could do better. Each story is unique and provides great insight into the idiosyncracies and complexitities of human behaviour and the various contexts that effect it. We will use these stories to illustrate various models of understanding behaviour, contextual drivers and barriers, values, habits, emotions and social norms. All interviews can be found on the Expert Platform at www.ieadsmtask24.ning.com

Country energy stories (Part of Subtask 2)

We are collecting the 'energy story' of each participating country in Task 24, during each national workshop. The Belgian energy story has been filmed in Brussels in September 2012, and will be converted to a podcast. The NZ energy story has been filmed in Wellington in 2013 and will soon be available as a movie on the Expert Platform. The slide presentations can be on the expert platform. Each participating country has also provided a Pecha Kucha on their national energy story (20 slides with 20 seconds per slide only). They can also be found on the expert platform.

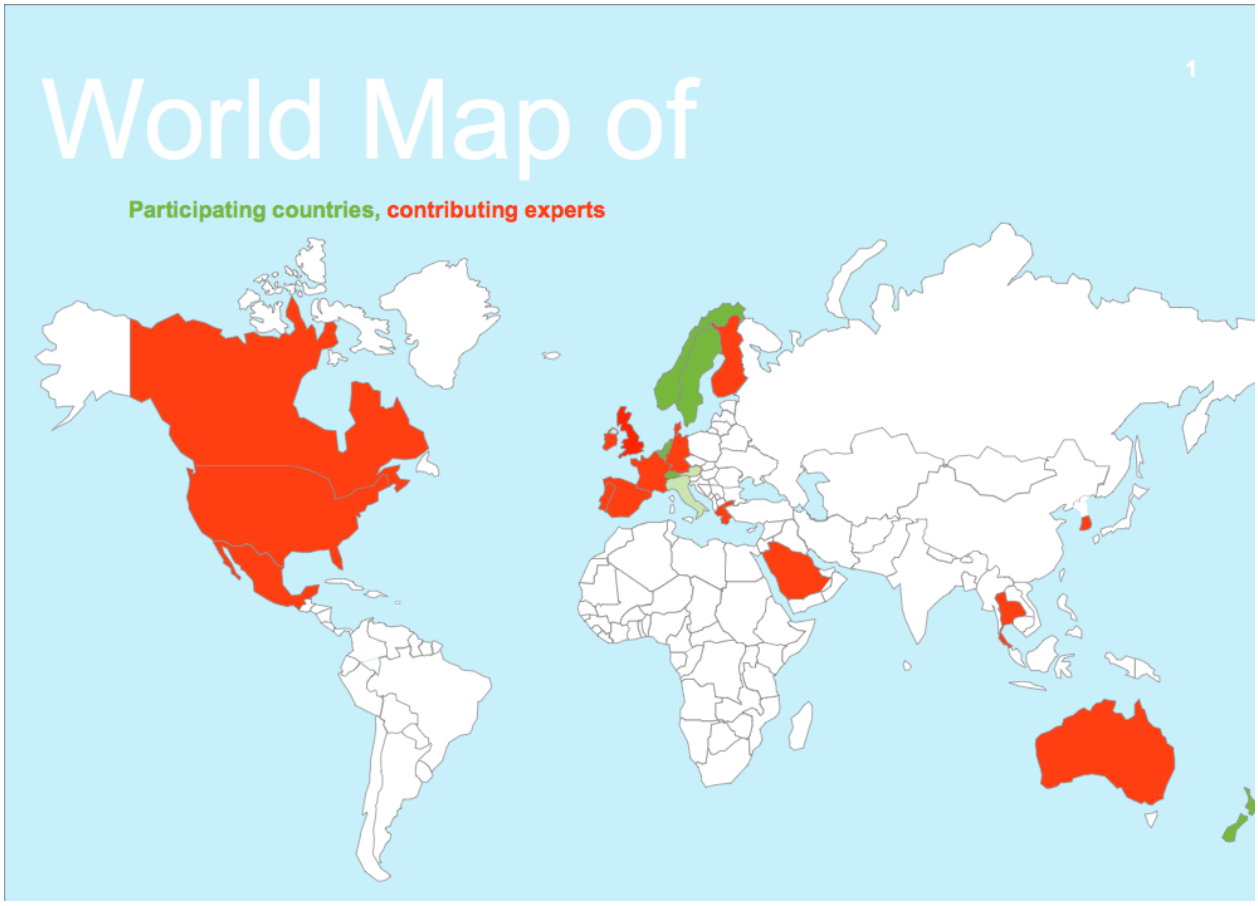
Workshops for Subtask I

Two more workshops concentrated on aspects of Subtask I. The Dutch workshop focused on failings in DSM programmes and what could be learned from them. A Dutch DSM transport case was presented in detail, and an evolutionary model of change was presented. Four concrete failures in DSM projects were discussed in workshops. The New Zealand workshop gave case study examples, both good and bad, in the four domains. It then workshopped a series of 'problems' as described from the different stakeholder perspectives, using a World Café style. The perspectives were: industry/technology (smart meters), government (transport), research (building retrofits). Unfortunately, we ran out of time to add community and SMEs to the workshop. All findings, presentations, videos and workshopped conclusions can be found on the Task 24 expert platform: www.ieadsmtask24.ning.com

2. SUBTASK V

Continued growth of experts on the platform

The Expert Platform is continually and organically growing and currently contains biographies and details from almost 150 experts from 7 sectors from 20 countries (see worldmap, below).



Utilisation and Engagement with Expert Platform

The expert platform has an incredible wealth of information on it:
- 68 videos, including a professional, 25min film from the 2-day Oxford workshop
- 59 photos, including impressions from all workshops
- 3 blogs from Sea Rotmann
- 9 events
- 6 discussion fora with several subdiscussions
- 2 member groups for Subtasks I and II

From Google Analytics stats, we can see that the platform is well utilised, with the average visitor staying around 9 minutes and clicking through the various sites. Where we still face problems, is engagement. Even though people are looking at the information (particularly after broadcast messages have been sent with digests and links to all new information), they are loathe to comment, add to, or even 'like' the content. They are also not utilising the many communication functions of the platform, such as private messaging between members, chat and the discussion fora. We have a plan on how we may improve engagement on the platform in the future. This will be implemented over the coming 6 months. The previous issues around managing content will be resolved by connecting a Task Wiki to the platform. So far, dropbox has been used quite successfully to collect and share information with the national experts. Matchmaking between various stakeholders has been quite successful and this Task has fostered many connections between members, both nationally and internationally. However, the most successful ways to create these connections was still via face-to-face workshops, which have proven invaluable to the Task. The second most successful networking tool was personal emails in response to one of Sea Rotmann's blogs. We have found over 10 highly committed and engaged experts via this medium.

Dissemination of results and discussion with stakeholders

Task 24 has produced a number of publications and given presentations at various conferences and workshops to disseminate and discuss the Task results. It is also widely disseminated and publicised online, via social media and social networks. Furthermore, stakeholder workshops and webinars were organised in conjunction with each project meeting to discuss behaviour change topics relevant to the host country of the meeting.

Task 24 Publications and reports

- IEA DSM Initial Positioning Paper on Behaviour Change
- IEA DSM Task XXIV Draft and Final Workplans
- IEA DSM Spotlight Issues (4 stories so far)
- IEA DSM Task Flyer 24 (updated)
- IEA DSM website Task 24 (updated)
- Positioning paper and minutes from Brussels workshop
- Positioning and definitions paper and UKERC report from Oxford workshop
- 25 minute professional film summarising Oxford workshop
- Template for Models of Understanding Behaviour via Case studies in 4 domains (25+ and counting)
- IEA DSM Task 24 Pecha Kucha presentation (powerpoint/film)
- 5 participating countries' Pecha Kucha presentations (powerpoint/film)
- Interviews of experts' own energy stories (film, over 30 so far)
- Belgian and NZ DSM and behaviour change story (podcast/film) - underway

- NZ World Café report-back (film/presentations/documents)
- ECEEE summer study (2013) paper on Task 24 by Rotmann and Mourik

Online sharing and administration of Task XXIV

- Widely disseminated via IEADSM on twitter, linkedIn and facebook group; also ECEEE, UKERC, EEIP, Global Energy Professionals and Global Energy Insights columns and blogs and energy and behaviour linkedIn groups
- Weekly publication of Behaviour Change & Energy News by Dr Sea Rotmann
- Expert platform went 'live' in July 2012: www.ieadsmtask24.ning.com
- Mendeley (www.mendeley.com) Task XXIV Group and bibliography database of >400 behaviour change and energy publications
- CRM Capsule (www.crmcapsule.com) contact relationship management system, collects all emails and contact information related to the Task
- Behaviour change and energy pearltree (www.pearltree.com) to collect and manage related websites etc
- Task XXIV dropbox (www.dropbox.com) to share templates and collected models etc
- Task XXIV wikipedia (www.ieadsmtask24wiki.info)
- Task XXIV youtube channel (http://www.youtube.com/user/DrSeaMonsta/videos?flow=grid&view=0)
- Task XXIV slideshare (http://www.slideshare.net/drsea)

3. SUBTASK 0

Meetings, webinars, report-back

The Advisory Group invitations have been sent out in March 2013. The first (online) meeting is planned for September 2013 to discuss findings from Subtasks I and II.
All other meetings, national expert workshops and webinars, as well as conferences and seminars where the Task was presented are shown below.

Meetings and workshops held so far

Date	Place	Total # Experts	# of countries	Type of meeting	Government	Business and NGO	Academic
10/4/12	Utrecht, NL	23	4	Task kick-off	4	9	10
10/4/12	Graz, AUT	5	2	Task kick-off	4	1	1
11/4/12	online	13	6	Webinar - Task kick-off	2	2	9
3/5/12	online	6	5	Webinar - Expert Platform	1	1	4
30/8/12	Utrecht, NL	20	1	Stakeholder Meeting NL	2	12	6
7/9/12	Brussels, BE	24	8	Expert Workshop	3	8	13

Date	Place	Total # Experts	# of countries	Type of meeting	Government	Business and NGO	Academic
9&10/10/12	Oxford, UK	65	9	Expert Workshop	3	13	39
26/10/12	online	6	5	Expert Webinar		2	4
12/11/12	online	6	5	Expert Webinar		2	4
20/12/12	Utrecht, NL	22	1	Stakeholder Meeting NL	1	14	7
7/2/13	online	6	5	Expert Webinar		2	4
15/2/13	Wellington, NZ	50	4	Expert Workshop	15	15	20

Seminars and/or Conferences where Task was presented

Date	Place	Total # Experts	# of countries	Type of meeting
8/5/12	Linköping, SE	20	2	Presentation to University
29-31/8/12	Basel, CH	~300	15+	Task Presentation at 3rd Intl Sustainability Conference
19/9/12	Helsinki, FI	20	3	Task Presentation to Finnish Experts
20-21/9/12	Helsinki, FI	~250	15+	Task Presentation and session chairing at BEhavE conference
24-25/10/12	Berlin, GER	100s	10+	Attendance at EEIP 'Energy Recovery in Industry: Opportunity for energy efficiency' conference
17/12/12	Wellington, NZ	10	1	Stakeholder update NZ Government
13-14/2/13	Wellington, NZ	100+	6	National Energy Research Institute conference 'Energy at the Crossroads'
13/3/13	Paris, FR	30+	28	Presentation to IEA Secretariat Behaviour Workshop 'Choices, Decisions and Lifestyles Roundtable'

WORKPLAN FOR THE NEXT 6 MONTHS

Reports and Publications planned for 2013

- Subtask I - Helicopter Overview Wiki of models, contexts and evaluation metrics
- Subtask I - analysis and interactive report-back
- Subtask II - collection of case studies and best practice in four overarching themes
- Subtask III - template to enable better evaluation of successful behaviour change outcomes depending on the stakeholder point of view
- Subtask V - social media 'paper' to be presented via social media at ECEEE summer study 2013
- ECEEE summer study paper on Task XXIV

- BECC conference paper on Task XXIV
- Spotlight issues on various aspects of the Task

Meetings planned for 2013

Several meetings, both face-to-face and online, are planned for 2013. We will have 2-monthly webinars with our national experts (unless there is a face-to-face workshop instead) to discuss ongoing work and any potential issues or questions. Our next face-to-face expert workshop will be in Norway on May 23-24, and Switzerland in October 15-16. In each expert workshop, hosted by a participating country, the country will get to tell its unique behaviour change and DSM 'story'. We will also collect case studies from Austria, Norway, Switzerland, Italy and the UAE for Subtask 2. Sea Rotmann will visit RSE in Milan, Italy and Energy Savers UAE in Dubai in June. Both Operating Agents will attend the ECEEE Summer Study.

FINANCE

Costs (revised for 7 countries)

Description personnmonths/costs	Cost (Euro)	personnmonths Sea Rotmann per subtask	personnmonths Ruth Mourik per subtask	total costs Sea Rotmann	total costs Ruth Mourik	total sum
Subtask 0	4500	3	1.5	13500	6750	20250
Subtask 1	4500	6	3	27000	13500	40500
Subtask 2	4500	6	3	27000	13500	40500
Subtask 3	4500	6	3	27000	13500	40500
Subtask 4	4500	5	2.5	22500	11250	33750
Subtask 5	4500	4	2	18000	9000	27000
Total personnmonths/costs		30	15	€162000	€54000	€202500
Description costs	Costs					
OAs travel costs	55000	costs travel Sea Rotmann and Ruth Mourik including extended stay in Europe of Sea Rotmann and frequent face to face meetings RM and SR (6 times travel SR to Europe from New Zealand)				
stakeholder analyses	5000	separate meetings and costs associated with stakeholder analyses				
website and data management	10000	including website, webinars, VC, social media, blogs/vlogs, database etcetera				
overheads and incidentals	7500					
Total	€77500					**€280000**

Income and Spending to date

Income	Cost
Country participation: NL €40,000 SE €10,000 NZ €20,000 NO €20,000 CH €20,000 **€110,000**	Person months Sea Rotmann 12pm Ruth Mourik 6pm **€81000**
In-kind: UKERC Meeting Place Oxford Workshop contribution €40,000 NZ Workshop contribution NZ$3600 In-kind expertise from non-participating countries: Over 6 weeks expert time	Travel and web development, video, incidentals: Sea Rotmann €22000 Ruth Mourik €5000 **€27000**

MATTERS FOR THE EXCO

Task XXIV started its operation in January 2012, although its final work programme was not officially balloted by the ExCo until July 2012, which is the new official starting date (decided by ExCo in Espoo, November 2012). If we officially get 8 countries (which will happen if Austria joins the Task), the Task will automatically be extended (without extra cost to the participating countries) until December 2014, including some additional time spent by the Operating Agents. This is to ensure there is enough time to hold workshops in all participating countries, including stakeholder analyses (necessary for Subtask 4) and case study collections (Subtask 2).

Subtasks	2012		2013		2014	
Subtask 0 - Admin						
Subtask I - Helicopter Overview						
Subtask II - Case Studies						

Subtasks	2012	2013	2014
Subtask III - Evaluation Template			
Subtask IV - Recommendations			
Subtask V - Expert Platform			

A 3-year Task extension is planned to turn theory into practice via action research projects to be standardised and contrasted amongst participating countries.

Agenda 4c. (41st meeting of the IEA DSM Programme)

Document G

"Proposed Extension"

Task 24: Closing the Loop – Behaviour Change in DSM: From Theory to Practice

The Proposal is submitted to the ExCo with the request to: • Approve the proposed extension

IEA DSM TASK 24
PROPOSAL FOR EXTENSION

TURNING BEHAVIOURAL THEORY INTO PRACTICE - ONE COUNTRY AT A TIME

Proposed by Operating Agents
Dr Sea Rotmann (SEA - Sustainable Energy Advice, NZ)
Dr Ruth Mourik (DuneWorks, NL)

BACKGROUND

Task 24 was initiated in January 2012 (official start July 2012) and is currently financially supported by 7 countries (Netherlands, New Zealand, Sweden, Norway, Switzerland, Belgium and (soon) Italy). It also has received strong in-kind (expert) support from the UK, Spain, Portugal, UAE, France, Australia, Canada, Austria and the US. Over 200 behaviour change and DSM experts from over 20 countries are involved to greater or lesser extent in various aspects of this Task and 150 are participating in the Task 24 Expert Platform (www.ieadsmtask24.ning.com), which is Subtask 5. Six highly successful expert workshops have been held to date - 3 stakeholder workshops in the Netherlands and 3 workshops discussing Subtask 1 - Helicopter Overview of Models of Understanding Behaviour and Theories of Change (in Brussels, Oxford and Wellington). Several webinars between the national experts have also taken place and there are over 60 videos and presentations of these events on the Expert Platform, including a professional 25 min film on the Oxford workshop, which was the largest to date.

Over 30 case studies showing the successful (or not so successful) use of diverse models of understanding behaviour in the areas of transport, SMEs, smart meters and building retrofits have been collected to date from 10 countries. These are currently being analysed and an interactive report and Wiki for Subtask 1 will be developed over the coming 2 months. Feedback and publicity of Task 24 has been outstanding - new, highly engaged experts are joining on a weekly basis, enabling us to collect relevant case studies from a truly global perspective. Some of these case studies will be studied in detail for Subtask 2, including (on top of all the participating countries) examples from Austria, the UAE and the UK. Later in the year, we will address the all-important question of how to best evaluate successful long-term behaviour change outcomes from the perspective of the various stakeholders (industry, government, research, community) who are our target audience. We are hoping these stakeholders (our so-called 'intermediaries') will benefit from the recommendations from Subtask 4.

Successful implementation of energy efficiency and DSM can mean: financial savings, job creation, improved load management, reduced need for new generation, security of supply, reduced emissions, reduced pollution, greener products and services, more affordable energy, reduced fuel poverty, increased warmth and comfort, improved health and wellbeing, better social cohesion, individual empowerment, community engagement, corporate responsibility and good PR, changing the social norm not to needlessly waste energy and resources.

We have been told again and again, that our Task is very timely, important and asks the right questions from the right audience. From feedback collected in our workshops and from our experts we know that we are very successful in:

* **Bringing together a vast range of highly engaged experts from every sector involved in changing energy using behaviours**: research, investors, government (local, regional, national, international), SMEs, utilities, industry, technology developers, NGOs, energy advisors and consultants, transport specialists, tradespeople, building physicists and architects, DSOs, TSOs, ESCOs, community groups, transition towns etc;
* **Breaking down silos between the different stakeholders**, introducing them to one another and helping them find ways to collaborate, understand, support

and learn from each other; particularly by encouraging them to tell their own (sector's) energy stories;

* **'Matchmaking' experts from different sectors**, countries and interests - for example, we have had several people from industry invited to give their presentations from our Workshops in different fora to spread the word; we have had technology developers join forces after realising they would otherwise duplicate their efforts; we have promoted up-coming businesses whose technology is now being trialed in pilots in other countries; we have had experts from Government visit Universities in other countries to give talks about work that was presented in our workshops etc. We have also helped a technology developer improve his new smart phone feedback software based on behavioural findings from Task 24;
* **Publicising our Task and the IEA DSM Implementing Agreement**. We are highly engaged in social media and write columns and blogs with a very large, global energy efficiency audience. We have built on our extensive professional networks and expanded them vastly using new media technology and 'old-fashioned' word of mouth and face-to-face workshops. We are known, including in the IEA Secretariat, as the 'Go-To' people/Task involved in behaviour change and DSM. In addition, we are very successful in spreading the word in academic settings - we have had one peer-reviewed paper accepted to date (with another abstract accepted) and given Task presentations in some of the largest behaviour change and energy conferences all over the world. This year, we will present the Task at the ECEEE summer study, the 3rd International Exergy, Lifestyle Assessment and Sustainability Workshop and Symposium, a stakeholder workshop in Dubai with over 200 energy stakeholders from the UAE (organised just to highlight this work) and, pending on abstract acceptance, the BECC conference in the US;
* **Developing creative ways of disseminating our work.** This includes very strong use of social media and social networks, but also a much more visual way of dissemination: videos, Pecha Kuchas, podcasts, graphic stories, infographics, photos and short films combining various elements. Our overarching approach to dissemination of this Task is *storytelling*. We are dealing with a very human issue in this Task, and it needs a very human approach to foster engagement and understanding. We collect each participating country's energy story, as told by its experts; we also collect the energy story of individual energy professionals from all sectors to showcase various issues that are central to the various models and theories, e.g. the influence of social norms, the interdependency with technological systems, the limited motivational influence of financial incentives etc. We also get stakeholders from the different sectors to tell their sector's energy stories as ways of defining a specific problem, e.g. how to improve smart meter feedback uptake to actually change energy using behaviours. There is something uniquely powerful about hearing professionals' tell their country's, sector's or personal energy stories, in their own words and with their own 'flavour'. The filmed stories prove more memorable and more emotionally engaging than any scientific reporting ever could. We also force our experts to focus on the most important aspects of each model or case they discuss by developing 'tweetable' (ie 140 characters or less) summaries for each example. This is a good way to ensuring that we can tell a good story without getting lost in too much detail or jargon.
* **Engaging our expert network to support our work in the various Subtasks**. On top of our excellent national experts, who provide the bulk of the information collected for our Task, we are able to draw upon a wide range of experts from other countries that are happy to provide case studies, feedback and support and who come to our workshops at their own cost. UKERC Meeting Place sponsored a highly successful 2-day workshop in Oxford with over €40,000;

* **Having a very wide scope, befitting the complexity of the topic.** DSM in our Task is defined as: 'Interventions (top-down and bottom-up policies, programmes and actions) developed and performed by intermediaries (government agencies, utilies, DSM implementers) that seek to influence the ways end users consume *energy at home, at their workplace or whilst traveling*. The changes sought by intermediaries may include the *quantity* of energy consumed for a given service, the *patterns* of energy consumption or the *supply management* and type of energy consumed. The intended outcome of DSM will differ with the aspirations of intermediaries but include energy efficiency, energy conservation, sufficiency, reduced greenhouse gas emissions, financial or social gains or (peak) load management. In the short-term, it may *not always lead to a total reduction in energy consumption* (although this is the medium to long-term goal), but to the most efficient and environmentally friendly use of energy to derive the services that underpin social and economic wellbeing (eg comfort, mobility, entertainment, cleanliness, production etc).' We aim to get insights and learnings into the role of the individual, social context, technology, actors and institutions, behavioural change processes, social change, relevant conditions and factors affecting behaviour change, context particularities and monitoring and evaluation which has been undertaken in real-life examples.

But despite these successes, there still remains a lot of work to be done. We have only just begun to scratch the surface of this most complex of problems: *Why do people behave the way they do, when it is not rational, costs them money and causes discomfort and even bad health, when they say they are willing to do something but act completely different, and unnecessarily waste energy and resources despite being largely aware of the importance of acting on global concerns such as climate change?*

We know all the questions, but still have only few concrete answers. The most important findings that we have from our work to date are that:

- This is one of the most complex problems facing us globally and there is real urgency to finding solutions (the IEA estimates that 2/3 of energy efficiency potential will remain unutilised to 2035 and that we will lock ourselves in to a long-term, catastrophic change of 2C by 2017)
- There is no simple answer, model or tool that will provide the 'silver bullet' that people hope for
- People rarely, if ever, behave in an economically rational matter
- The most commonly used models of changing behaviour, namely providing incentives and information (based on classical economics), are hardly ever enough to achieve long-term habit changes
- There are complicating factors such as rebound, prebound, spill-over effects, cognitive biases, principal agent and free-rider issues, which still remain to be studied in real-life applications
- We need to enable more context-sensitive segmentation beyond the traditional socio-demographic and psycho-social segmentations
- Every individual's energy use is different depending on the underlying needs for service and its role in their lifesstyle: e.g. their personal transport will have different drivers and barriers and contexts compared with their hot water or appliance use
- Individuals or households may not be the only right agents for interventions to change energy, we may have to affect systematic changes of energy practices, e.g. such as the practice of line drying
- We also need to develop more interventions geared at schools, SMEs, offices etc
- We are slowly seeing that, although economic and psychological approaches are still the most common models of understanding behaviour, sociological approaches are increasingly used to design DSM interventions

- The stakeholders using these sociological approaches, however, are often not policymakers, but intermediaries designing interventions in a more bottom-up fashion
- We do need to build on national knowledge and sectors and detailed understanding of local conditions, cultures and contexts in order to provide bottom-up support for top-down interventions
- However, we also need to engage strongly with policymakers to enable them to design better DSM interventions based on the most appropriate models and theories
- We will thus need to collaborate and engage across all sectors in order to develop, implement and evaluate actions that will achieve long-lasting changes in practices
- We need many more concerted efforts in action research and piloting different approaches, with ongoing evaluation to iterate them as needed
- For all this, we need a shared learning platform that provides all the best practice and up-to-date knowledge across borders and sectors.

These are some of the reasons why an extension of Task 24 is necessary and highly pertinent. The experts engaged in our Task are calling for more support on all these issues. It would be a huge waste to lose the momentum and engagement developed in this Task without bringing it towards further solutions to unraveling the complexity we are dealing with here. We would argue that this issue has been overlooked for too long, seeing what incredible potential for DSM and energy efficiency remains to be unlocked in the behavioural wedge (at least 30% of total energy use). Skip Laitner, formerly from ACEEE, estimated that 86% of all energy used in the US is wasted (i.e. only 14% of the US energy use being efficient). If one compares the amounts spent on technology research and development (including elusive silver bullets such as the hydrogen economy, nuclear fusion and CCS) with the tiny amounts spent on researching the human aspects of energy use, we get an idea why some of these questions remain unanswered. An extension for this Task will go quite a way towards improving our collective, global knowledge and actively designing, implementing, evaluating and iterating successful interventions in policy, programmes and pilots.

PROPOSED NEW WORK

Continued: Subtask 0: Task Management

Subtask number	0
Start date or starting event:	Month 1
End date of Subtask	Month 36
Subtask title	**Project coordination, ExCo feedback and reporting**
Activity Type	Management and administration

Objectives

d. Overall project coordination and management, including contact relationship management
e. Attendance of ExCo meetings, conferences and reporting to IEA DSM ExCo
f. Set-up Task Advisory Board (AB) of stakeholders (ExCo, IEA, intermediaries from research, industry, government, community sectors)

This Subtask will focus on overall project management, attending ExCo meetings and report-back to the IEA DSM ExCo members, organising financial and other administrative issues and publicising the Task. It will also involve a series of workshops and webinars to finalise the Task definition and expert input/output.

Outputs include: Overall project organisation and management (OAs); Task Status reports (OAs with inputs of NEs, AB); Annual reports (OAs); End of Term report, if applicable (OAs with inputs from NEs, AB); Participation in IEA DSM ExCo meetings (OAs); Final report and task management report (OAs with inputs of NEs, AB); Task flyers – at the start and at the conclusion of the project (OAs); Communication with related IEA tasks and other projects (OAs).

The Operating Agents (OAs) will ensure project progress according to the timetable, deliverables, milestones and expected results and the professional, result-oriented implementation of the project in close collaboration with the national experts (NEs). The OAs are also responsible for all reporting to the DSM ExCo. The Advisory Board (AB) will provide strategic overview and governance.

Continued: Subtask 5: Expert Platform

Subtask number	5
Start date or starting event:	Month 1
End date of Subtask	Month 36
Subtask title	**Social Media Expert Platform**
Activity Type	Networking, dissemination

Background

Behaviour change is a very social human issue. One of the main drivers/barriers for behaviour change are prevailing social norms. These social norms are strongly affected by our social networks. Social media has become a prevailing, global tool to engage with our social networks. Hence, this Task will utilise the idea of social networks (and social media as a tool to engage them) to disseminate, engage, collaborate and share learnings with the experts and stakeholders from participating or contributing countries.
In addition, many experts now start to find each other irrespective of national boundaries, asking questions in an international setting, sharing lessons, and we need to further develop this intereactive part of the expert platform, i.e. for creating innovation hubs around DSM technologies and ideas.

Objectives

g. Continued running, maintenance and improvement, as necessary, of social media expert platform
h. Creation of on-line innovation hubs around DSM technologies and ideas in transport, smart metering and smart grids, sme's, office buildings and (communities of) households.
i. increased targeting of other type of stakeholders,e.g, technology developers, financing stakeholders.

SUBTASK 6 - National DSM Experts

Subtask number	6

Start date or starting event:	Month 3
End date of Subtask	Month 12
Subtask title	**National DSM Experts and Stakeholder Analysis**
Activity Type	Networking, workshops, empirical analysis

Background

Subtask 5 has collected - and will continue to do so - a large range of DSM experts from all sectors and stakeholder groups, from over 20 countries. Their short bios, websites and interests can be found on the Expert Platform (www.ieadsmtask24.ning.com). We will continue the Expert Platform into the Task Extension but also propose to additionally develop national expert platforms for each participating country with more detailed information on the various experts, their affiliations, their past and current work, their sectors and interests and what they are most concerned about regarding DSM and behaviour change. Part of the work for Subtask 6 will be (bi)annual national stakeholder workshops, as currently successfully trialed in the Netherlands where active matchmaking, shared learning and collaborative support will be fostered and encouraged. This will include identifying the top DSM issues relevant for each country (see Subtask 7), training sessions for policymakers and other intermediaries (Subtask 8) and efforts to provide support to the development, implementation, evaluation and iteration of pilots, programmes or policies on the countries' top DSM issues (Subtask 9).

Objectives

j. Identify the most important stakeholders and experts working on DSM and/or (energy) behaviour change in each participating country

k. Collect detailed information on their specific interests, expertise, organisations, past and current work - including lists of reports and other references which will form a (inter)national repository of most relevant DSM work in each country with links to available documentation.

l. Develop national stakeholder dialogues in each participating country by holding (bi)annual workshops and/or webinars (1-2 days per country per year, all up maximum of 7 days per country)

m. Foster mutual engagement, collaboration and shared learning amongst stakeholders from different sectors

n. Collect examples of successful matchmaking stories to illustrate benefits of shared learning and collaboration among all stakeholder sectors and creating inspiring videoed interviews.

SUBTASK 7 - Top DSM Issues per Country

Subtask number	7
Start date or starting event:	Month 6
End date of Subtask	Month 18
Subtask title	**Top DSM Issues per Participating Country**
Activity Type	Workshops, empirical analysis

Background

As part of the Subtasks 2 and 4 of the current Task 24, many DSM issues will be identified that lack in-depth understanding and are in need of further research, particularly on the national level, to account for the context specificities. Below are a list of issues that have been raised several times already in the different workshops that Task 24 has undertaken so far:

How to address end-user acceptability issues:

- e.g. if part of the control of smart meters is automatic and/or from distance, or generally related to accepting smart metering and not going for the opt-out option, or acceptance of retrofitting by tenants/landlords (principal agent issues) etc

Segmentation of households and SMEs and mobility/transport segments:

- Little is known about the response diversity of different households to different interventions. Very often the segmentation is not performed or at a very general level.
- SMEs are a missing link in research on DSM. They are viewed as a homogeneous group, but no understanding is available as to the variety of DSM relevant issues within the SME group. Are restaurants different from retailers? Are small industrial SMEs differing from service sector SMEs? Is there a segmentation necessary for offices and commercial buildings?

Specific technology and behaviour issues:

- There are lists for the participating countries that highlight the top 20 behaviours that could actually make a significant contribution to load reduction and load shifting. However, a big barrier for many DSM implementers in the participating countries is that the advice on suitable interventions too often remain on the general level of retrofitting, feedback, sustainable mobility and do not apply to specific behaviours or technologies. Insufficient knowledge is available as to what the specific context barriers for very specific behaviours and purchasing or use of DSM technologies are, e.g. changing lights, insulating the house, lowering the thermostat, buying smart appliances?

Objectives

o. Building on work from Subtasks 2 and 4, develop lists of top 3 DSM issues per country (with country experts identified in Subtask 6)

p. Review current approaches, nationally and internationally, on these top issues and provide case study examples that could illuminate some of the issues (based on work in Subtask 1 and 2)

q. Develop a country-specific list, together with country experts, of top 20 efficiency and conservation behaviours and their approximate potential in shifting or decreasing load (similar to what Dietz et al have done in the US)[8] and tailored DSM approaches to achieve actual change on these behaviours for different lyfestyle segments. This will help chose which top DSM issue should be addressed in each country in Subtask 9.

SUBTASK 8 - Training Sessions for policymakers and (other) Intermediaries

Subtask number	8
Start date or starting event:	Month 12
End date of subtask	Month 24
Subtask title	**Training Sessions for Intermediaries in Participating Countries**

[8] Dietz et al (2009). Household actions can provide a behavioral wedge to rapidly reduce US carbon emissions. *PNAS* 146 (44): 18452–18456. http://www.pnas.org/content/106/44/18452.long

Activity Type	Training, support

Background

As discussed above, we are already seeing a slow shift from mainly economic and psychological approaches that only focus on the individual as behaviour change agent, to more sociological and systemic approaches that take the wider dependencies and contexts into account. However, this shift is still taking place in silos, mainly from the bottom-up and without large-scale, coordinated national efforts to design interventions that could change energy practices on the wider, societal level. We are proposing to build on the excellent work recently undertaken in the UK that is focusing on fostering understanding (so far, with policymakers only) wider and more systemic disciplinary theories of behaviour and practices[9]:

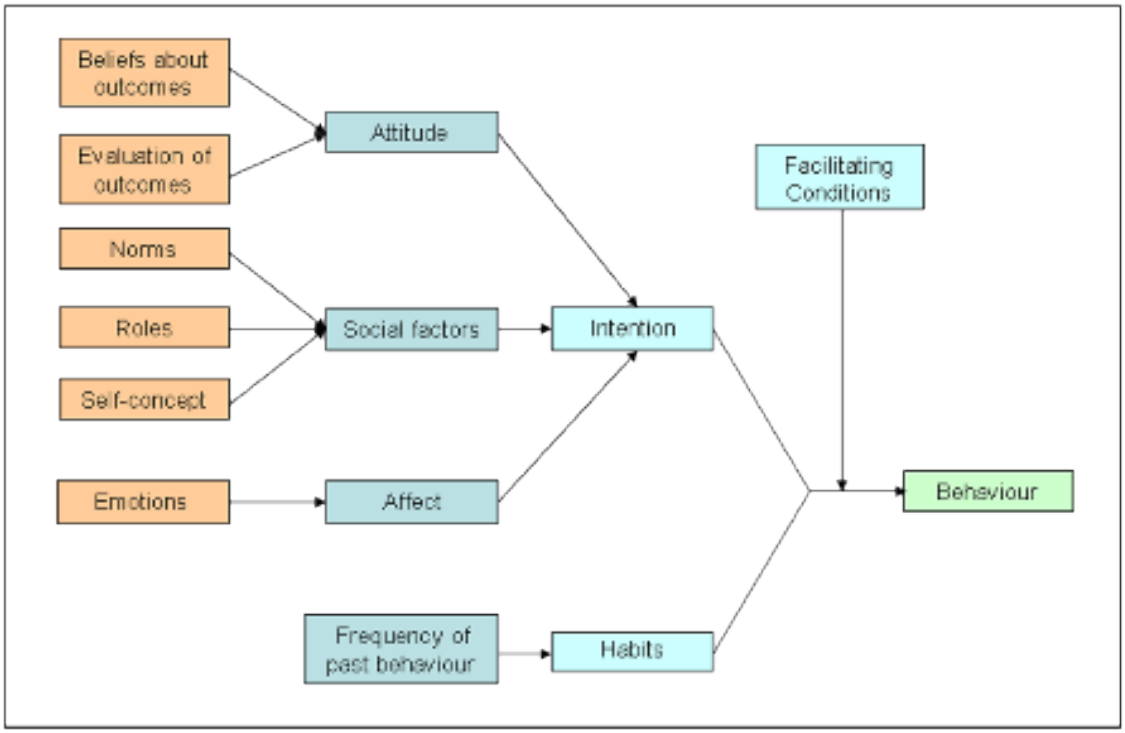
'The literature provides two distinct perspectives on habit, coming from two different academic disciplines: psychology, and sociology. In the former, habit appears as a psychological construct, and a factor influencing behaviour. In the latter, habits appear as routine practices. These differences in describing habits go to the root of the differences between how the two disciplines think about human conduct. Social psychologists talk about „behaviour", which originates in the individual, and is the product of their beliefs, attitudes and other motivational factors. Sociologists on the other hand talk about „practices", which exist as entities out there in the social world, and are reproduced by the individuals who perform them.

Psychology and sociology offer two distinct and sometimes conflicting accounts of habit. Yet to take full advantage of the insights from these two perspectives, it is imperative that practitioners understand both, and do not privilege one over the other. This is because different behaviours will suit different approaches, and different audience groups will respond better to different kinds of intervention. For instance, those who are already motivated to change may need individualised help with „getting started", while the unmotivated may be best addressed through practice-based programmes that do not target individuals directly. Such an interdisciplinary approach is also in keeping with best practice in behaviour change guidance, which observes that "there is no one winning model" – an adage particularly appropriate when tackling complex problems like environmental sustainability.'

There are pros and cons in each approach and neither is more or less right than the other. The positive of individualistic, psychology-inspired approaches is that it provides a framework which establishes all the main drivers, barriers and contexts affecting individual behaviour, and offers a linear (usually from left to right) approach to changing behaviours ('if A + B + C is taken care of = Behaviour Change'). See Figure 1 below.

[9] Darnton, A, Verplanken, B, White, P and Whitmarsh, L (2011). Habits, Routines and Sustainable Lifestyles*: A summary report to the Department for Environment, Food and Rural Affairs.* AD Research & Analysis for Defra, London. Chatterton (2011). An Introduction to Thinking about 'Energy Behaviour': A multi-model approach. *A paper for the Department of Energy and Climate Change.*
Also the newly created DEMAND center (http://www.demand.ac.uk/) which will focus on Dynamics of Energy, Mobility and Demand (starts May 2013)

Figure 1: Triandis' Theory of Interpersonal Behaviour (TIB), (1977)



From Darnton (2011): The **TIB** has been shown to be a better predictor of behavioural outcomes than other models (including the often-used Theory of Planned Behaviour) in behaviours where there is a significant habitual component – such as daily commuting by car. The implications of the TIB for policymakers and practitioners are numerous, stemming from that clear vision that our behaviour can be simply habitual (ie. completely unintentional). The most obvious lesson is that *rational appeals to individuals, based on persuasion or social norms, with the expressed aim of changing our intentions, may have no impact on behavioural outcomes*, if the behaviour in question is following the habitual path. In many instances, the best predictor of our future behaviour is how we have behaved in the past. Embodied in Triandis' model is the psychological thesis that our behaviour can follow two diffferent paths: a deliberative path (via intentions) and an automatic path (via habits) - Kahneman's Dual Process Model of Cognition.

From a policy perspective the potential downsides to these intensive individual-based interventions are as follows: First, **scaleability**: can these programmes be rolled out to enable habit change across the population, and how much resource (in time and money) would that take? Second, **inclusivity**: if pre-motivation of individuals is required, what proportion of the population can be engaged in programmes of this kind? Third, **breadth of spectrum**: what strength of habits and types of behaviour can these self-change techniques work on (eg. good for commuting, less good for frequent flying).

Instead of targeting individuals' motivations, **practice theory** calls for the rearranging of the elements that hold certain practices together. This approach does not depose that based in psychology, but provides a complementary strategy. Together, they enable us to develop an integrated suite of tools which can address habit on a number of levels.
- Social practices are by their very nature routine, or habitual. They arise from the *interaction between people and the structures of the social world* – which are revealed in the practices

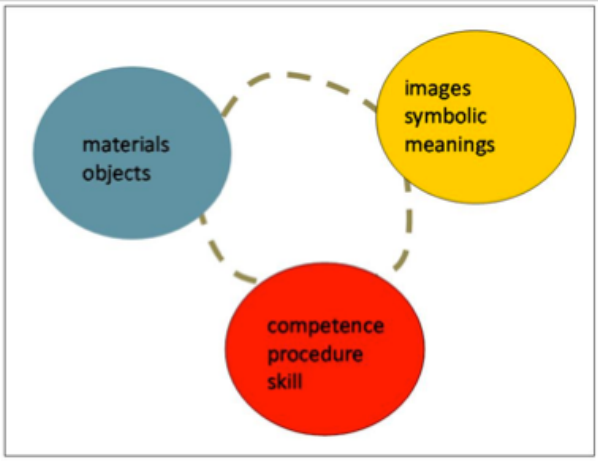
themselves. Instead of habit being a factor in behaviour, practice theory suggests that *habit is behaviour*.
- People are not the originators of behaviour, but the *carriers of practices* – and the practice goes on after a person has finished carrying it out. As such, people reproduce practices, which are relatively stable and recognisable entities (e.g. we all know football, and so we can reproduce it in a relatively consistent manner).
- It follows from this that if we wish to change routine practices, we may *not need to target individuals at all* for some habits. Instead we should address the elements in the social world which support a particular practice. But we should remember that these elements are not causal factors („barriers and drivers"); instead they are the emergent properties of the social world, revealed through the practice they sustain.
- Recent work in practice theory has boiled down the strands of a practice into just three elements (see Figure 2):

Materials *(objects, necessary infrastructure)*

Competences *(skills and know-how)*

Images *(also ideas and interpretations)*

Figure 3: The integration of elements in practices as habits (Shove 2008)



The loopedness of the model is a fundamental difference to the linear Triandis' TIB model above. Furthermore, in TIB habits feature as a factor, interacting with other factors to determine the end behaviour. But from the perspective of practice theory, habits are an *outcome of human conduct, not a factor determining behavioural outcomes*. The important implication for policymakers and practitioners is that intervention strategies must seek to address the *whole practice* (where the individual and the social world meet), and not just that facet within individuals' motivation which makes them keep behaving the same. From this perspective, habit change is not about increasing an individual's conscious control over their behaviour. At the same time as habits as practices move into the centre of our enquiries, so individuals move over to one side. This is a positive in terms of the much wider scope for potentially reducing energy use when changing (national or global) practices. It is, however, also much more complex and difficult to envisage and to design interventions that can affect energy practices.

In order to break the lock-in of routine practices, intervention is not a matter of removing external factors, or simply working upstream of the consumer (eg. by changing aspects of the supply chain). It becomes a matter of *rearranging the parts, the rules and resources which make up*

the habit as routine. Whereas in behaviour, a change intervention involves applying different external or internal stimuli (as „drivers") to bring about different outcomes, in the realm of practice, where practices are emergent arrangements of elements which the actor is already implicated in sustaining, the shape of the intervention and the role of the intervenor are more ambiguous. First there is the **practical problem** of knowing how to catch hold of the moving elements, and with what force to work on them. Second there is the **conceptual problem** of the emergent nature of the practice, which means we cannot say that reconfiguring the elements will result in particular practices taking hold; we can only say that it will speed the rate of change, and bring about the conditions necessary to support particular practices. These are reasons for why a practice-based approach may seem daunting and too difficult to achieve to intermediaries, especially if they have to design interventions in silos.

Objectives

r. Building on the national expert groups identified in Subtask 6, develop training sessions (6 days per country, 2 initial training days with 4 days set aside for assistance during design, implementation and evaluation of new approaches - Subtask 9) focusing on interdisciplinary understanding of different models of understanding behaviour, particularly an individually-focussed psychological approach vs a practice-focussed sociological approach

s. Building on the top national needs established in Subtask 7, work with main stakeholder groups to develop policies, programmes or pilots based on their improved understanding

Subtask 9 - Implementation, Evaluation, Iteration

Subtask number	9
Start date or starting event:	Month 18
End date of Subtask	Month 36
Subtask title	**Implementation, Evaluation, Iteration of Pilots, Programmes or Policies designed in Subtask 8**
Activity Type	Support, empirical analysis

Background

We hope that after identifying the most relevant expert stakeholders in each participating country (Subtask 6), identifying the top DSM issues in each participating country (Subtask 7), undertaking training with the national stakeholders and assisting them in designing better pilots, policies or programmes (Subtask 8), we will have several pilots, policies or programmes designed that can be implemented, evaluated and iterated (if necessary). This Subtask will focus on assisting stakeholders with the design (also part of Subtask 8), evaluation and iteration of better DSM policies, programmes or pilots. Evaluation efforts will strongly build on the stakeholder-specific Evaluation Tools created in Subtask 3.

Objectives

t. Provide continual assistance during implementation and evaluation of these policies, programmes or pilots in order to iterate them, if necessary

u. Report-back outcomes from each country's intervention and develop shared learning platform.

Task sharing overview

In addition to the cost sharing to the OA budget, each country will be required to:

Provide (payment for) expert time of approximately 2 person-months a year (total 6 months per national expert). This payment or contribution also holds for countries of OAs.

This includes:

8. Undertaking part of the research and/or writing work for selected parts of Subtasks 6 to 9
9. Attending up to six meetings/workshops of the Task and preparing for them
10. Hosting at least 3 national meetings/workshops during the lifetime of the Task
11. Assisting with organising national training sessions with country stakeholders
12. Carrying out the national dissemination activities, plus
13. Actively engaging in the (national) expert platform/s.

Participation may partly involve funding already allocated to a national activity, which falls substantially within the scope of work to be performed under this Task.

Deliverables overview

Subtask	Deliverable	Deliverable name	Type of deliverable	Month of completion
0	D0	Advisory committee	Network	ongoing
5	D6	Social platform and meeting place for DSM and behaviour change experts and implementers and international innovation activities	Online social media platform	ongoing
6	D7	Expert Network listing all national experts and their details	Online social media platform	12 but ongoing
6	D8	Repository of all relevant DSM/behaviour work per country	database	12 but ongoing
7	D9	List of top 3 DSM issues per country, including analysis of case studies elsewhere	database	18
7	D10	List of 20 efficiency and conservation behaviours and approximate contribution to a country's load management	database	18
8	D11	Training module for country stakeholders	Interactive training module	24
9	D12	Support on design, implementation, evaluation and iteration of national policies, programmes or pilots	Interactive report-back of country-specific learnings developed from Task 24	36

BUDGET

We hope to ultimately attract at least 8 countries (and/or sponsors), as this Task benefits from the maximum number of experts (in addition to the national experts) we can engage to draw on their knowledge and learnings. Not all of them may be part of participating countries, thus in-kind contributions of experts and countries to specific Subtasks will be welcome. The IEA DSM ExCo is currently developing guidelines on what constitutes the various participants (see draft definitions):

Sponsors would consist of regular sponsors such as RAP, and would have the same rights, duties and obligations as members, but cannot hold the position as Chair or Vice Chair. Need to be approved by Executive Committee members and the CERT.

Task Sponsors would have no vote in the Executive Committee. They would pay the common fund and have an equal task share. Need to be approved by the Executive Committee and the CERT.

National Task Participant: The country is a DSM IA member, and the national Executive Committee member "allows" participation of a "third" national party. The participant pays an equal budget share, and the Operating Agent can put that contribution as an in kind contribution in to the Task budget if all participants agree. The Participant has a regular vote in task content matters, and all Executive Committee tasks and rights remain with the regular Executive Committee member or Alternate.

Contributor: A contributor is a non-member country party accepted by Task participants (1&2). The contributor pays for additional work (can be partly in kind), may have their logo on reports and other hardcopy material. Access to data needs to be decided by the participants in a work plan. The Contributor has no rights on Intellectual Property, has no voting rights on Task or IA matters and is contracted to the Task.

Supporter: A supporter attends workshops, seminars etc. at their own cost and contributes to the development of materials, methods etc. A supporter is invited to contribute on the discretion of the Operating Agent, and has no rights at all.

4 countries	**5 - 7 countries**	**8 - 9 countries**	**10+ countries**
€60,000 per country (€30,000 per annum) (2 OAs, travel, platform maintenance, filming, training module, overheads) **Total budget €240,000**	**€68,750 per country (€27,500 per annum)** (2 OAs, travel, platform maintenance, filming, training module, overheads) **Total budget €343,750-€481,250**	**€75,000 per country (€25,000 per annum)** (2 OAs, travel, platform maintenance, filming, training module, overheads) **Total budget €600,000-€675,000**	**€82,500 per country (€25,000 per annum)** (2 OAs, travel, platform maintenance, filming, traini module, overheads) **Total budget €825,00**
Level of detail in deliverables: · Social expert platform · Country expert platform · Top country specific issues of 4 countries · Training modules for 4 countries * Report-back from interventions in 4 countries	Level of detail in deliverables: · Social expert platform · Country expert platform · Top country specific issues of 6-7 countries · Training modules for 6-7 countries · Report-back from interventions in 6-7 countries	Level of detail in deliverables: · Social expert platform · Country expert platform · Top country specific issues of 8-9 countries · Training modules for 8-9 countries · Report-back from interventions in 8-9 countries	Level of detail in deliverables: · Social expert platform · Country expert platform · Top country specific issu of 10+ countries · Training modules for 10+ countries · Report-back from interventions in 10+ countries
24 months duration	**30 months duration**	**36 months duration**	**42 months duration**

For each additional country, considerable additional efforts will be undertaken, particularly in setting up national expert platforms and running extra workshops and training sessions, as well as country-specific empirical analysis and support in designing, implementing, evaluating and iterating programmes, policies and pilots. However, much more information which will have great comparative value to other countries, will be collected. In addition, each country will get more workshops, support and longer-term evaluation periods (which are more valuable when assessing long-term habit changes) the more countries come on board.

TIMELINE

Based on 8 countries.

Subtasks	2015		2016		2017	
Subtask 0 - Admin						
Subtask 5 - Expert Platform						
Subtask 6 - National experts						
Subtask 7 - Top DSM Issues						
Subtask 8 - Training sessions						
Subtask 9 - Interventions						

AGENDA 5a. (41st meeting of the IEA DSM Programme)

Document H

Task 16 Competitive Energy Services Phase III – Energy Efficiency and Demand Response Services

Task Status Report

Jan W. Bleyl

See attachment

The Task Status Report for Task 16 is submitted to the IEA DSM ExCo meeting with a request for the ExCo to:

- Approve the Task Status Report

AGENDA 5b. (41st meeting of the IEA DSM Programme)

Document I

Task 21 - Standardisation of Energy Efficiency Calculations

Harry Vreuls, NL Agency

Task Status Report
March 2013

This Task Stats Report is submitted to the IEA DSM ExCo with a request to:

1. Approve

Participating countries

The following countries are participating: France, Korea, Netherlands, Norway, Spain, Switzerland and the USA.

Progress in the work

Since the last expert meeting April 2011 in Seoul (Korea) no additional meeting was organised.

At the Exco meeting in Helsinki, November 2012, the main results of the work were presented, including the highlights for the topics as included in the work plan:

- Experiences in countries with energy savings calculations for selected technologies and the usefulness of the template for documenting energy savings calculations;
- Summaries of findings for the selected technologies
- Harmonisation for energy savings calculations and key elements
- Guidelines for energy savings calculations
- Future development/improvements for harmonisation of energy savings calculations

Shortly after this Exco meeting the country reports as well as the summaries for the case applications were published at the IEA DSM Website.

The information from the country reports and the summaries were used as input to the Report on Harmonisation for energy savings calculations. This report summarises the experiences we have gained with using the template during the project and for the selected technologies the key elements are presented for each of the country's case application. This report is finalised.

The Report on Guidelines for energy savings calculations report summarises existing approaches, terminology and key elements for energy savings calculations in use in monitoring and evaluation of energy savings programmes. The evaluation practises as collected by the country experts and the Operating Agent were the input for this report. Additional the report holds a chapter on key elements for DR products. This report is finalised.

In the report on Roadmaps along which ESC standards could be further developed it is concluded that the European (CEN) finalised, for the time being, the development of a standard while the international standardisation organisation (ISO) is in the process of creating general standards on energy savings and energy savings calculations. In Europe the new EED results in uncertainty on future needs for energy savings calculations, but some work continue within the Concerted Action project. In the USA the Uniform Methods Project is started: DOE aims to establish easy-to-follow protocols based on commonly accepted engineering and statistical method for savings for energy efficiency measures

As proposed during the last Exco meeting, additional work within the IEA DSM Agreement could be especially in the area of develop case applications for selected additional technologies as input for the follow-up of the EU/ISO standardisation work, the EU programmes and/or the US uniform methods projects and develop case applications and evaluations for packages of P&M.

Discussions with experts learned the Operating Agent that this is **not** the right moment to start a new subtask within the IEA DSM Agreement. When in becomes more clear in Europe (by the end of 2013) which policies and measures the EU countries will (continue) to implement for energy savings for reaching the target set in the EED and the US uniform project has its outputs, there is a better understanding whether IEA work has additional value and that experts time will be available. The Operating Agent will continue to follow these developments and inform the EXCO with a view to close the Task (and the communication activities) by April 2014 or to have then a proposal for a new subtask.

Financial status

Budget

The budget, as included in the work plan is follows:

		Manpower (€)	Project costs (€)	Total (€)
Subtask 1	Existing ESC standards, standards under development and most relevant reports for ESC	46000	4000	50000
Subtask 2	Basic concepts, rules and systems for ESC standards	72000	5000	77000
Subtask 3	Potential for use and continue development and maintenance of ESC standards	67000	9000	76000
Subtask 4	Communication and information	38000	39000	77000
TOTAL		223000	57000	280000

Status

By 1st January 2013 the expenditures for manpower were € 209,651 and the project costs were € 41,966. So the total costs were € 251,617. As agreed in earlier Exco meeting a part of the budget (about €25,000 was set aside for communication actions after finalisation of the subtasks (e.g. distribution of the outcome of the Task at conferences and providing answers to questions during 2013 up to early 2014). The remaining small part of the budget will be used to ensure that the information from the Task is used by the international standardisation organisation (ISO). Also some of this time will be used keeping the EXCO informed on options for preparing a new subtask.

The project is finalised within the budget.

All countries paid the invoices.

Work plan for the coming months

The Operating Agent will continue to provide information to relevant stakeholders and update the information on the IEA DSM website. It is foreseen to present a paper on the Task results at the IEPEC conference.

The Operating Agent will continue to co-operate with the ISO work group "Definition of a methodological framework applicable to calculation and reporting on energy savings".

Items for the EXCO

2. To approve the status report

AGENDA 5c. (41st meeting of the IEA DSM Programme)

Document J

TASK 20: Branding of Energy Efficiency Services

Task Status Report
March 2013

Balawant Joshi, ABPSInfra, India

The Task Status report is submitted to the IEA DSM ExCo with a request to:

- Approve the Task Status Report
-

The Operating Agent is in the process of development of 8 to 9 case studies on Best practices in branding of energy efficiency. These case studies will be used to identify the best practices in branding of energy efficiency. These case studies will be part of the proposed report on "Best Practices in Branding Energy Efficiency". As proposed the report on sub task V will be ready by the end of the April 2013.

Task XX – Branding of Energy Efficiency

Operating Agent: Balawant Joshi, ABPS Infrastructure Private Limited, India

Introduction

"Branding of Energy Efficiency" was first identified as an area for new work at April 2006 Executive Committee meeting in Copenhagen. At the 31st Executive Committee meeting held in April 2008, Task XX on Branding of Energy Efficiency was put into force.

The Task is expected to develop significant understanding of barriers associated with branding of energy efficiency and strategies to overcome those barriers. The Task was proposed with the belief that it should be possible to reverse the fortunes of energy efficiency products and services, if successful branding is achieved. Branding of energy efficiency products and services would increase their visibility and credibility.

Objectives

The Primary Objective of this Task would be to 'Develop cogent and comprehensive framework for promotion of branding of energy efficiency in electricity markets at different level of maturity'. Apart from the above mentioned main objective, need for research in the following areas was felt to be immediate:

- To identify knowledge & attitude of households in developing electricity markets;
- To identify best practices in definition of suppliers of energy efficiency products and services;
- To identify the potential for energy efficiency products and services in other energy consuming sectors such as agriculture, industrial and commercial, etc.;
- To identify the potential for programmatic approach towards energy efficiency; and
- To identify the barriers to branding of energy efficiency;

Subtasks:

Following subtasks were identified in Task XX-Branding of Energy Efficiency.

Sub-task I: Energy Efficiency Offerings Analysis
Sub-task II: Energy Efficiency Consumer Analysis
Sub-task III: Assessment of relationship between EE product pricing and maturity of electricity market
Sub-task IV: Review of branding strategies in similar areas
Sub-task V: Identification of 'Best Practices in Branding EE'
Subtask VI: Communication and Outreach

As per the revised Task XX activities, Task XX is reduced to sub task V. The Sub-task V is discussed in detail below:

Sub-task V: Identification of 'Best Practices in Branding EE'

Subtask Objective

To identify case studies and develop best practices in branding of energy efficiency and to identify role of institutional structures and government support in development of successful branding strategies.

Subtask Deliverables

A report summarising the best practices in branding of energy efficiency.

Work to be carried out

In this sub-task, survey of successful efforts in branding of energy efficiency in the participating countries as well as other countries will be undertaken. In this regard, Operating Agent will develop questionnaire and circulate the same to all the participating country experts for the development of Case Studies.

This sub-task will also help in identifying the best practices in branding of energy efficiency. The Operating Agent will undertake the following activities for the development of best practices in branding of energy efficiency: development of case studies for successful branding efforts across the globe, understand business enablers for branding in each case, identify best practice in branding of energy efficiency, identify inter linkages for different aspects of branding, identify role of institutional structures and government support in development of successful branding and identify key lessons which may be adopted in development of successful branding strategies.

Activities planned for next six months

The research is being carried out and the report will be submitted for sub-task V in April 2013.

Expenditure

Original budget for the Task XX was Euro 330400. However, same has been reduced to Euro 123900 in Fortieth Executive Committee meeting held on November 14 to 16 at Espoo, Finland considering the revision made in the deliverables and time frame. As on March 21, 2013, the Operating Agent had spent Euro 108028 on the task, which is 83% of revised total value of the task, Euro 123900. The details of expenditure are as given below:

Sr. No.	Item	Expenditure
1	Task Definition Phase	4400
2	Sub Task I	16534
3	Sub Task II	11609
4	Sub Task V	21400

5	Administrative	44345
6	Task Expert Meetings	9740
	Total	**108028**

Involvement of industry and other organisations:

India
Bureau of Energy Efficiency

Spain
Red Electrica de Espana

United States
Lawrence Berkeley National Laboratory,

France
ADEME
Département Marchés et Services d'Efficacité Energétique,

Reports produced in 2012
Nil

Reports planned for 2013

Name of report
Best Practices in Branding Energy Efficiency

Technology development success stories
Nil

Positioning of the Task - vs. other bodies
X

Activity Time Schedule

Subtasks	Starting date	Ending date
Subtask V: Identification of "Best Practices in Branding EE"	2012-12-01	2013-04-30

Status of the Task:

The Operating Agent is in the process of development of 8 to 9 case studies on Best practices in branding of energy efficiency. These case studies will be used to identify the best practices in branding of energy efficiency. These case studies will be part of the proposed report on "Best Practices in Branding Energy Efficiency". As proposed the report on sub task V will be ready by the end of the April 2013.

Participants

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AGENDA 6b. (41st meeting of the IEA DSM Programme

Document K

Future of the Agreement – End of Term New 5 Year Period

March 2013

Rob Kool

The Task Status Report is submitted to the IEA DSM ExCo in Utrecht, Nederland with a request to: • Approve the work according to the timetable and act accordingly

Extention IEA DSM Programme

IEA

Index

INTRODUCTION

The main purpose of this End-of-Term Report is to provide the End Use Working Party (EUWP) members with information on the Demand-Side Management Implementing Agreement. This information will enable the Working Party to decide whether or not to recommend that the term of the Agreement be extended and to enable them to advise on strategic directions for the Agreement.
This End-of-Term Report will also be used to highlight the results of the Agreement's work, raise the profile of the Agreement and attract interest from both Member and non-Member countries to consider participation in this Agreement. The Report will be posted in the password-protected area of the DSM Programme's website and summarized in the Programme's newsletter.
The information presented in this report was organized according to the guidelines provided by the IEA Secretariat. The period of review is January 2008 to December 2012.

OBJECTIVES AND STRATEGY

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 of improved technologies. Depending on market organisation in each country such changes involve different actors. In many cases the utilities play an active role.
The IEA Demand-side Management (DSM) Programme is responsive to the energy policies, programs and market needs of the participating countries, and as they continue to change, so must the Programme change. Since the DSM Programme began in the early 1990s, the energy sector has changed dramatically in many participating countries, but the vast potential for improvement on the demand side remains largely untapped.
The IEA DSM Programme is neutral to the structure of the energy sector and remains prepared to deliver the research requested to suit the needs and interests of participants. To do this the Programme must closely follow the developments of the market from both a governmental and business perspective as well as track the changing stakeholder situation.
Working on the demand side is more important than ever. Deployment of the technologies and diffusion of efficient products are key issues for success. There is a definite need to consider with whom and how, in order to address more appropriately the stakeholders that can make a difference, be they governments, agencies, industry, end-users, utilities or NGOs.
A global exchange of experiences is of great importance in order for countries to develop both models for implementation that facilitates trade across borders and create a base for facilitating/enabling technologies to be developed, produced, shipped and used in a way that improves their performance and makes the cost for the applications acceptable. The IEA DSM-Programme provides such a global platform for development.

Countries have different terminology for DSM-measures and the IEA DSM-Programme tries to cover them and address them correctly. We work with both Energy Efficiency measures that affect the load level and with Load Management measures that motivate and require Demand Response to affect the load shape and especially the peak load.

(1) The Objectives of the Demand-Side Management (DSM) Agreement are to:

The Programme has two major objectives directed at its two major stakeholder groups. The Programme will provide to:
(a) governments of the participating countries, increased capabilities to develop policies and programs for more effective use of DSM and energy efficient products; and to
(b) energy businesses, the information and tools necessary to create new cost-effective products and services in response to domestic and global opportunities;
But the Programme also enables access to information to:
(c) stakeholders that advocate energy efficiency and sustainable energy systems arguments and knowledge about the opportunities;

- Government includes administrations, authorities, regulators etc. and their associations.
- Energy businesses include system operators, transmission and distribution companies, brokers, wholesalers, utilities and their associations. Suppliers of "enabling hardware and software technologies" are included in this category.

(2) Organisation of the Programme

To promote synergy and increase impact, the Programme structures its activities into two clusters, depending on the potential or desired impact on the load curve of the energy system (see also appendix 1 for further details and views on the cluster organisation).

Load Shape Cluster

This cluster includes Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. See Appendix I.

Load Level Cluster

This cluster includes Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions. See Appendix I.
The Tasks in each of the clusters are managed by the Programme's Executive Committee as a group. Tasks within each cluster are closely coordinated to build upon the relationships in sharing their results and in addressing similar target groups. The ExCo has also been able to concentrate its management attention on each cluster at subsequent ExCo meetings.
It has been possible to handle the financing for new work more rationally with the better overview provided by this clustering and with the synergies between the Tasks in each cluster made clear.

Programme Products

With the aim that the Programme should deliver more readily available products to be used and implemented, a range of products have been developed 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 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.)
- articles for professional journals
- workshops and presentations at workshops and conferences
- forums for dissemination and/or discussion with possible users, customers, decision-makers, etc.

- growing pool of individuals and organisations in each country that develop new expertise in DSM issues and solutions
- databases
- 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..

Each of the Tasks have carefully planned how the work can be made available to their stakeholders by integrating several of their products and also by continuously reviewing how dissemination can be improved. The Operating Agents have explicitly stated what products they intend to deliver and have done so in a special dissemination subtask as an integral part of their work.

New additions to the work programme:

The Executive Committee (ExCo) has an on-going process to consider proposals for new work. The Committee used the Programme's Strategic Plan to guide the identification of new work in Technology and Policy Areas summarized below:

- **increasing energy prices (and market design issues)**
- **smart meters**
- **security of supply** - study how energy systems respond to crisis
- **portfolio development - study** on how economies can reduce electricity growth by 10 or 20 percent in 10 years by energy efficiency and DSM measures vs. **growing demand**
- **models and initiatives for boosting technologies** , aggregated procurements, dynamic top-focused standards, clearinghouses for programmes and projects e.g. CDM/JI related
- **energy efficiency ownership (new aggregators)** / b**randing of Energy Efficiency**
- **networking and initiatives to reinforce services and promotions** (ESCOs, marketing, municipality involvement)
- **rate-design** by performing a comprehensive analysis of various economic incentives 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.
- **climate change – energy efficiency in the CDM-projects.** Quantify and document the impact of EE on climate change fungible instruments
- 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.
- **bottom up evaluation /monitoring and verification**
- **transmission /** d**istribution needs**
- **Policy instruments: standards and labelling, white certificates** (follow up practices), **tax policies** , d**emand response (legal property right) certificates** , o**ptimizing investments**

PARTICIPATION OF COUNTRIES AND INDUSTRY

Participants in the implementing agreement 2008 – 2012 & Participation on the Executive Committee [10]

COUNTRY	Number of Executive Committee Members	Utility/Industry	Government
Australia	1		1

[10] There is one non-IEA member county currently participating in this Programme, namely India. Kuwait and Saudi Arabia are likely to join in the near future.

Austria	1		1
Belgium	1		1
Canada	1		1
Denmark	2	1	1
Finland	2		2
France	2		2
Greece	2		2
India	2		2
Italy	2	2	
Japan[11]	2	2	
Korea	1	2	
Netherlands	2		2
New Zealand	2		2
Norway	1		1
Spain	2	2	
Sweden	1		1
United Kingdom	1		1
United States	1		1
Regulatory Assistant Project (RAP) [12]	1	1	

Participants in the Tasks that were active during January 2008 – December 2012 are shown below, categorised as government, industry, utility or research institutes. If the number of Task Participants changed over the course of the Task's work, the maximum participation is shown.

Participant Category	**TASKS**										**Total**
Task	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	
Government	4	6	2	2	2	1	4	2	1	4	28
Industry	2	3	2	2	3	2	4		4	X[13]	22
Utility	12	1	2	1	2	1	1				20
Academic	-		7	-	1					1	9
Other								1			1
Total	**18**	**10**	**13**	**5**	**8**	**4**	**9**	**3**	**5**	**4**	**80**

Participation by industry representatives in the Tasks:

In this report the term "industry" is broadly used to include all private sector businesses and organisations, such as utilities, manufacturers, marketing firms, trade associations, etc. Industry involvement in the Agreement's activities during the reporting period ***Participation by industry representatives in the work of the Tasks was:***

Task 15 – Network Driven DSM
Country Energy (Australia), Energex (Australia), Energy Australia, Ergon Energy

[11] Sponsor – remained Sponsor until 17 October 2008
[12] Sponsor – became Sponsor on 9 June 2011
[13] In this task industry is participating in workshops, but not an official task participant

(Australia), Jemena (Australia) Powerlink Queensland (Australia), SP Ausnet (Australia), TransGrid (Australia), Réseau de Transporte d'Electricité (France), Electricity Networks Association (New Zealand), Transpower (New Zealand), ESKOM (South Africa), RED Eléctrica de España (Spain), ABPS Infrastructure Pvt Ltd (India), Electricity Networks Association (New Zealand)
Task 16 – Competitive Energy Services (Energy-Contracting, ESCo Services) Graz Energy Agency GmbH (Austria), Japan Facility Solutions, Inc. (Japan), Essent Retail services BV, Essent Local Energy Solutions, Hitachi Consulting
Task 17 – Integration of Demand Side Management Distributed Generation, Renewable Energy Sources and Energy Storages Arsenal Research (Austria), AIT Austrian Institute of Technology (Austria), Merinova Oy (Finland) ECN, RED Eléctrica de Espana (Spain), Silverstein & Associates , National Renewable Energy Laboratory Lapeenranta University of Technology (Finand), ENEXIS B.V., Vienna University of Technology (Austria), ECSE3/G2ELAB, TNO (Nederland)
Task 18 – DSM and Climate Change ABPS Infrastructure Pvt Ltd (India), RED Eléctrica de España, Everis (Spain)
Task 19 – Micro Demand Response and Energy Saving VTT Technical Research Centre, Public Power Corporation (PPC) , RED Electrica de Espana , EA Technology Ltd JI Network (the Netherlands) , University of Gröningen
Task 20 – Branding of Energy Efficiency Bureau of Energy Efficiency (BEE) India, Lawrence Berkeley National Laboratory (USA), RED Electrica de Espana (Spain)
Task 21 – Standardisation of Energy Savings Calculations Enerdata, Korean Energy Management Corporation (Korea), RED Eléctrica de Espana (Spain), Schiller Consulting Inc (USA)
Task 22 – Energy Efficiency Portfolio Standards RED Eléctrica de Espana (Spain), Regulatory Assistance Project (RAP)
Task 23 – The Role of Customers in Delivering Effective Smart Grids KEMA Nederland BV, Korean Power Exchange, SP technical Research Institute of Sweden, EA Technology Ltd
Task 24 – Closing the Loop –Behaviour change in DSM: from theory to policies and practice National Energy Research Institute (NERI) (New Zealand)

Participants from Government in the work of the Tasks

Task 15 – Network Driven DSM ADEME (France), Electricity Commission (New Zealand), Oak Ridge National Laboratory (USA)
Task 16 – Competitive Energy Services (Energy-Contracting, ESCo Services) Graz Energy Agency GmbH, FEDESCO, Motiva Oy, Bureau of Energy Efficiency (BEE), Swedish Energy Agency Swiss Federal Office of Energy
Task 17 – Integration of Demand Side Management Distributed Generation, Renewable Energy Sources and Energy Storages Gestore dei Servizi Elettrici (GSE), Korea Energy Management Corporation (KEMCO)
Task 18 – DSM and Climate Change

Sustainability Victoria (Australia), ADEME (France)
Task 19 – Micro Demand Response and Energy Saving ADEME (France), Bureau of Energy Efficiency (BEE)
Task 20 – Branding of Energy Efficiency ADEME (France)
Task 21 – Standardisation of Energy Savings Calculations ADEME (France), Enova SF (Norway), NL Agency (The Netherlands), Swiss Federal Office of Energy, (Switzerland)
Task 22 – Energy Efficiency Portfolio Standards Bureau of Energy Efficiency (BEE) (India)
Task 23 – The Role of Customers in Delivering Effective Smart Grids Enova SF
Task 24 – Closing the Loop –Behaviour change in DSM: from theory to policies and practice NL Agency (The Netherlands), Swiss Federal Office of Energy (Switzerland), SPF Economie (Belgium), Swedish Energy Agency (Sweden)

With the exception of task 22 we see a combination of industry and government participation. Putting a percentage to this collaboration doesn't make much sense in this End of Term report, but it's good to see that

Participation in activities as a partner:

The IA started as partner in the PEPDEE project, but as the secretariat didn't take the agreement serious, the Exco decided to give minimise the collaboration

Attendance at Task experts meetings and open seminars:

The Tasks of the DSM implementing agreement use often workshops as part of the projects. There is no clear figure on the total sum of participants, as not everybody kept count. The question marks are for meeting that took place without structured participants' lists.

TASK	Attendance at Task Experts Meetings, Workshops and Open Seminars in 2008 - 2012			
	Task meetings	Participants	Seminars/Conferences	Participants
Task 15	1	**?**	1	15
Task 16	10	89	10	445
Task 17	8	**?**	4	**?**
Task 18	3	**?**	-	-
Task 19	5	44	-	-
Task 20	2	15	-	-
Task 21	4	**?**	1	**?**
Task 22	2	11	-	-
Task 23	2	14	1	5
Task 24	8	153	5	650

Potential for increased participation

The level of participation is quite high at present. Nonetheless the Executive Committee expects to increase that level in the next five years period. The involvement of additional countries from the +5 group would be helpful to meet the IA's objectives and to make DSM a globally addressed issue. There are no real constraints on country or industry participation. The recruitment of Sponsors is an on-going process and we are looking for four specific categories:

- industry that manufactures and markets specific technologies for DSM, such as metering and related enabling technologies,
- industry that has an intermediary role in making DSM work, such as transmission companies, regulators and system operators,
- utility associations that gather information and promote utility businesses, including DSM activities, and
- utilities that undertake DSM programs in their countries

Entities that withdrew from the Agreement during the term under review:

- Australia
- Canada
- Denmark
- New Zealand

Entities that joined the Agreement during the term under review:

- New Zealand
- Regulatory Assistance Project (RAP) – Sponsor

THE WORK PROGRAMME AND NATURE OF WORK

The Tasks

a) CURRENTLY ACTIVE TASKS

Name	*Starting date*	*Expected completion date*
Task 16 – Competitive Energy Services (Energy Contracting ESCo Services) Phase I - III	July 2006	April 2015
Task 20 – Branding of Energy Efficiency	January 2009	April 2013
Task 21 – Standardisation of Energy Savings Calculations	April 2009	April 2013
Task 23 – The Role of Customers in Delivering Effective Smart Grids	June 2012	November 2013
Task 24 – Closing the Loop – Behaviour Change in DSM: from theory to policies and practice	June 2012	June 2014

b) TASKS COMPLETED DURING THE PERIOD OF REVIEW

Name	Starting date	Expected completion date
Task 15 – Network-Driven DSM	October 2004	October 2008
Task 17 – Integration of Demand Side Management Distributed Generation, Renewable Energy Sources and Energy Storages, Phase I and II	September 2007	August 2012
Task 18 – DSM and Climate Change	March 2008	November 2010
Task 19 – Micro Demand Response and Energy Saving	January 2009	March 2010

Task 22 – Energy Efficiency Portfolio Standards	March 2010	April 2012

The nature of the Agreement's activities.

All of the current Tasks have a significant amount of cost-shared work and most of the current Tasks involve a degree of Task-sharing. The Executive Committee organises Special Sessions, usually two per year on national activities. For example, Standby Power (**New Delhi, India, 2 April 2008**) and White Certificates: the Italian experiences gained in Regulation, Monitoring & Verification and Electricity Market contexts (**Milan, Italy, 22 October 2008**).

Other workshops, held in conjunction with Executive Committee meetings were:

Vienna, Austria – 1 April 2009 - "Demand Side Management (DSM) and Energy Efficiency – Elements for Optimizing our Energy Systems"

Chester, United Kingdom – 21 October 2009 - Is DSM the Answer? – Solving the problems of Tomorrow's Electricity Systems

Rueil-Malmaison, France – 7 April 2010 - Last Evolution of Demand Side Management in the World

Stockholm, Sweden – 6 October 2010 - The Smartness of Smart Grids

Washington D.C., United States – 13 April 2011 - Experiences with Energy Efficiency Resource Standards

Jeju Island, South Korea – 2 November 2011 - How to Develop DSM in Korea

Trondheim, Norway – 18 April 2012 - Current Issues in Demand Side Management

Espoo, Finland – 14 November 2012 - Current Issues in Demand Side Management

CO-ORDINATION WITH OTHER BODIES

With other Agreements or international programmes

Hans, Rob, others

The agreement participated in the Buildings Coordination Group and the Electricity Coordination group. The work programme was discussed with the implementing agreements 4E and ISGAN. On the moment there isn't an overlap with either of them. This doesn't give any guarantees for the future as the policy part of ISGAN tends to look at demand response as well. Both IA's are aware of this possible overlap.
IA DSM contributed an will keep contributing to the work of the secretariat whenever possible. As such the IA attended three NEET workshops and gave presentations in Russia and South Africa.
The IA also contributed to World Energy Outlook.
Some EXCO members and operating agents collaborated with eceee to disseminate the IA knowledge.

Strengths and weaknesses of this IEA Agreement.

a) Strengths

1) A wide international perspective.
2) Less bureaucratic than most other networks. There is less administration and red tape, which makes it easier to manage projects.
3) The sharing of information can occur on a formal and informal basis.
4) All participants come to the table as equals.
5) Participants have the ability to define the Task work and therefore achieve their desired goals.
6) The link with the International Energy Agency (IEA) adds prestige to the work
7) The international scope enhances the level of participation

B) Weaknesses

The weaknesses are presented in the internal evaluation:

1) Dissemination outside own circle.
2) Proving added value to policymakers.
3) An image problem of being "last century"

INFORMATION DISSEMINATION

Task Publications

a) Task 15 – Network Driven DSM – In force October 2004 - October 2008

Report name	*Date of report*
Task 15: Research Report No1: Worldwide Survey of Network-Driven DSM Projects. Second Edition	10 October 2008
Task 15: Research Report No 2: Assessment and Development of Network-Driven Demand-Side Management Measures. Second Edition	10 October 2008
Task 15: Research Report No 3: Incorporation of DSM Measures into Network Planning. Second Edition	10 October 2008
Task 15: Research Report No 4: Evaluation and Acquisition of Network-Driven DSM Resources. Second Edition	14 October 2008
Task 15 Research Report No 5: Role of Load Control and Smart Metering in Achieving Network-related Objectives. First (and only) edition.	13 October 2008
Database: **Case Studies Database:** Detailed case studies of network-driven DSM projects. Includes 64 case studies	October 2008
Database: **Load Management Technology Database:** Detailed descriptions of load control and metering technology products. Includes 17 product descriptions	October 2008
Final Management Report	

b) **Task 16 – Competitive Energy Services (Energy Contracting, ESCo Services):** Phase I - In force July 2006 to June 2009/Phase II – July 2009 – June 2012/Phase III – July 2012 – June 2015

Report name	Date of report
Book contribution: " 'Energy – Contracting' to Achieve Energy Efficiency and Renewables using Comprehensive Refurbishment of Buildings as an Example. A Guide for Building Owners and ESCOs" from Urban Energy	March 2008 (ISBN-13:978-0-08-

Transition, Elsevier Science & Technology edited by Peter Droege.	045341-5)
Manual: Opportunity Cost Tool, Comparison and Evaluation of Financing Options for Energy-Contracting Projects	March 2008
Comprehensive Refurbishment of Buildings through Energy Performance Contracting. A Guide for Building Owners and ESCos,	November 2008
Manual: Publishing of "Comparison of Financing Options for Energy-Contracting. A manual for ESCOs, ESCO customers and ESCO project developers" in cooperation with Energymag, possibly with French translation	2nd quarter 2009
eceee Conference paper – eceee Proceedings: Energy Efficiency First! Integration of Demand Side measures into Energy Supply Contracting Models (Integral Energy Contracting)	June 2009
eceee Conference paper – eceee Proceedings: Energy Contracting: How much can it Contribute to Energy Efficiency in the Residential Sector?	June 2009
Umfassende Gebäudesanierung durch Energie-Einspar-Contracting. Ein Leitfaden für GebaÅNudeeigentümer und Contractoren. Vorläufige Endversion,	August 2009
Ganzheitliche Gebäudesanierung mit dem integrierten Energie-Contracting Modell am Beispiel der LIG Steiermark. Ein neues Geschäftsmodell zur Umsetzung von Energieeffizienz und (erneuerbare) Energielieferung für große Gebäude und Gewerbebetriebe.	September 2009
Reprint of chapter:" 'Energy Contracting' to Achieve Energy Efficiency and renewables using Comprehensive Refurbishment of Buildings as an Example. A Guide for buildings owners and ESCos" from Urban Energy Transition, Elsevier Science & Technology, edited by Peter Droege.	3rd quarter 2009
Integrated Energy Contracting (IEC). A new ESCo Model to Combine Energy Efficiency and (Renewable) Supply in Large Buildings and Industry.	October 2009
What is Energy-Contracting? Concept, Definition Two Basic Business Models.	October 2009
Final Task Report (Phase 1: 2006–2009)	February 2010
Comprehensive Refurbishment of Buildings through Energy Performance Contracting. Good Practice Examples Amended. A Guide for Building Owners and ESCos	June 2010
Opportunity Cost Tool, Comparison and Evaluation of Financing Options for Energy Contracting Projects. Good Practice Examples Amended. A Manual for ESCo, ESCo customers and ESCo project Developers.	July 2010
Integrated Energy Contracting (IEC). A new ESCo Model to Combine Energy Efficiency and (Renewable) Supply in Large Buildings and Industry. IEA DSM Task16 Discussion Paper.	October 2010
eceee Conference paper: Conservation First! The New Integrated Energy-Contracting Model to Combine Energy Efficiency and Renewable Supply in Large Buildings and Industry.	June 2011
How to unite energy Conservation and (Renewable) Supply? The new Integrated Energy-Contracting Model. In memoriam of Prof. Manfred Heindler.	July 2011
Methodological comparison of ESC and EPC ESCo business models	October 2012

c) Task 17 – Integration of Demand Side Management Distributed Generation, Renewable Energy Sources and Energy Storages: Phase 1 – September 2007 – to September 2008, Phase 2 – January 2010 – August 2012

Report name	*Date of report*
Petten Workshop: presentations and summary	July 2008
Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages. Visions of successful integration and conclusions. Poster Session in "Third International Conference on Integration of Renewable and Distributed Energy Resources".	December 2008
Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages – Final Synthesis Report Vol. 1.	December 2008
Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages – Final Synthesis Report Vol. 2.	December 2008
Integration of DSM, DG, RES and ES	2011
Full electric and plug-in hybrid electric vehicles from the power system perspective. Subtask 5, Report No. 1,	August 2012
Micro-CHP technologies for distributed-generation. Subtask 5, Report No. 2,	August 2012
Heat pumps for cooling and heating. Subtask 5,	August 2012
Photovoltaic at customer premises, Subtask 5, Report No. 4,	August 2012
Smart metering, Subtask 5,	August 2012
Stakeholders involved in the deployment of micro-generation and new end-use technologies,	August 2012
Assessment of the quantitative effects on the power systems and stakeholders – case studies from Austria and Finland. Subtask 8 Report.	August 2012
Summary and conclusions. Subtask 9 Report.	August 2012

d) **Task 18 – DSM and Climate Change** In force March 2008 to November 2010

Report name	*Date of report*
Working paper 1:	
Working paper 2: Preliminary Study of Emissions Trading Schemes in the UK and Australia	2009
Research Report No 1: Interactions between Demand Side Management and Climate Change	2010
Research Report No 2: Principles for Assessing Emissions Reductions from DSM Measures	2010
Research Report No 3: Mitigating GHG Emissions and Delivering Electricity System Benefits	2010
Research Report No 4: Funding DSM Projects with Revenue from Carbon Trading	2010
Working paper: 3 Time of Use Pricing and Emissions Mitigation	2010
Database: containing detailed case studies of 18 DSM projects	2010
Database: containing detailed studies of 13 greenhouse gas emissions mitigation projects	2010

e) Task 19 – Micro Demand Response and Energy Saving In force January 2009 – to 30 March 2010.

Report name	*Date of report*
Micro Demand Response and Energy Savings Products – Definition of the Requirements and the Options for Effective Delivery	March 2010

f) Task 20 – Branding of Energy Efficiency In force January 2009 to April 2013

Report name	*Date of report*
None	

g) Task 21 – Standardisation of Energy Savings Calculations In force April 2009 to April 2013.

Report name	*Date of report*
Standardisation of Energy Savings Calculations, State-of-the-Art	March 2010
Template Energy Savings Calculation for Case Examples	July 2011
Country Reports with National Case Applications for energy savings and greenhouse gas reduction	2012

h) **Task 22 – Energy Efficiency Portfolio Standards**In force March 2010 to April 2012

Report name	*Date of report*
Report on 'Best Practices in Designing Energy Efficiency Obligation Schemes'	April 2012

i) Task 23 – The Role of Customers in Delivering Effective Smart Grids In force June 2012 to November 2013

Report name	Date of report
Subtask 1 Report showing the impact of markets on customers' willingness and ability to participate in Smart Grids	March 2010

j) Task 24 - Closing the Loop–Behaviour Change in DSM: From theory to practice: In force June 2012 to June 2014

Report name	*Date of report*
Positioning paper for Brussels workshop	2012
Positioning and definitions paper for Oxford workshop	2012
Template for Models of Understanding Behaviour Change	2012
Task 24 Pecha Kucha presentation (PowerPoint/film)	2012
5 participating countries' Pecha Kucha presentations (PowerPoint/film)	2012
Interviews of Experts' own energy stories (film)	2012
Oxford workshop 25 minute film and graphic storytelling	2012

Dissemination of the Task results

Chapter 4 of the Programme's Procedural Guidelines describes how the Programme conducts its review and approval process for internal working documents and formal Task reports. The programme has established a Visibility Committee to assure that all Programme information-related activities and products are of high quality and contribute to the programme's mission. The Visibility Committee consists of the Chairman, the Visibility Committee Chairman, an Executive Committee member representative, and one Operating Agent representative. The Executive Secretary for the Programme, the Editor of the Spotlight Newsletter, the Webmaster and the Executive Committee Advisor assist this Committee.

This Committee is responsible for the development of communication strategies, identification of information, dissemination opportunities, allocation of resources and assessing the effectiveness of all communication and visibility activities. The Visibility Committee reports to the Executive Committee.
The major information products of the programme, in addition to the Task reports and flyers are the Web Site, the Annual Report, the Spotlight Newsletter and the Programme Information Brochure. Copies of each are enclosed with this document.
Dissemination activities include conference presentations, information posted on the website, promotional materials and press publications. Some examples include:

Task 16 - *eceee Conference paper – eceee Proceedings:* Energy Efficiency First! Integration of Demand Side measures into Energy Supply Contracting Models (Integral Energy Contracting)	June 2009
Task 16 - *eceee Conference paper – eceee Proceedings:* Energy Contracting: How much can it Contribute to Energy Efficiency in the Residential Sector?	June 2009
Task 16 - *eceee Conference paper:* Conservation First! The New Integrated Energy-Contracting Model to Combine Energy Efficiency and Renewable Supply in Large Buildings and Industry.	June 2011
Task 17 - Presentation at 2009 IAEE European Conference	September 2009
Task 17 - Presentation at End-Use Working Party (EUWP) workshop on Electricity in the future Transport System.	September 2009
Task 17 - Presentation at 5th Dubrovnik Conference on Sustainable Development of Energy Water and Environment Systems.	October 2009
Task 17 - Presentation at ENARD workshop	October 2009
Task 17 – Presentation at Joint Eurelectric . IEA DSM event	March 2010
Task 17 – Presentation at CICED Conference in Nanjing, China	September 2010
Task 17 – Presentation at IEA DSM workshop "The Smartness of Smart Grids"	October 2010
Task 21 – Presentation at the International Energy Program Evaluation (EPEC) Conference on "Energy Savings Calculations: what are we heading for? Increasing libraries of guidelines and handbooks or global harmonization and (inter)national standards?"	August 2009

OAs to provide more info above

Mechanisms to enhance communications and increase visibility of the Agreement:

The mechanisms used to enhance communication and increase visibility are base on the programme's Communication Strategy.
This strategy has four parts:

1. improving communication and dissemination tools,
2. improving Task support,
3. reaching our target audiences, and
4. evaluating impacts.

"Well Targeted Information Dissemination – A Check-list of Suggested Pathways"

Task report covers include the name of the DSM Implementing Agreement and number and title of the Task. A brief description of the IEA's collaborative programme is also included.
To help raise the profile of the Programme, with journal articles based on Task work is being done within the IEA DSM Programme.

All public documents and the website now include the IEA disclaimer.

"Monitor Communications Achievements"

Disseminating information to targeted audiences is an on-going activity. This End-of-Term report and the strategic plan describes the programme's information dissemination efforts and results.

Significant developments in, or plans for, information dissemination activities.

- A new website was designed at the end of the last reporting period and has undergone further substantial developments during the current reporting period, to improve information exchange and facilitate direct contact with the Programme's target audiences and Internet search engines. During the reporting period Facebook, Twitter, LinkedIn, and YouTube have been added to the website, to disseminate the Programme's work and interact with the Programme's target audience. A statistical analysis tool provides the Executive Committee with reports on the effectiveness of the site by measuring site usage as well as tracking downloads of each individual Task report.
- The Spotlight Newsletter, is a printable electronic newsletter that reports on Tasks and Programme news, and relevant DSM issues. The newsletter is distributed 4 times a year through the Executive Committee members and the Operating Agents to a wide group of readers. The Spotlight Newsletters for the reporting period are attached.
- During 2012 the website was developed and now has new sections for news, columns, workshops, calendar and latest reports.
  Annual Report – The Annual Report summarises the work of the Programme for that year and is a requirement of the IEA Secretariat. The style and format have been maintained during 2008–2012. It contains the Chairman's Report focusing on achievements of the Programme and new work initiated that year. It summarises the work for each current Task reporting on their objectives, scope of work, progress for the year, activities completed and planned, involvement of industry and other organisations and lists the reports produced in that year and those planned for the next year. It presents an activity time schedule and lists all participants. The report is disseminated to each Executive Committee member, and Operating Agent as well as to the members of the End-Use Working Party (EUWP) and Energy Efficiency Working Party (EEWP). The 5 Annual Reports for the reporting period are attached.
- Workshops – IEA DSM Programme workshops are held relative to national and international interests in conjunction with bi-annual Executive Committee meetings or Task experts meetings. Some workshops focus on a specific topic, while others summarise the Tasks work for audiences in the host country. All IEA DSM Programme participants have been requested to identify national events and to present IEA DSM Programme information at those meetings.
- A Programme Information Brochure was produced in 2006 to provide a summary of the Programme and is still being used successfully. The brochure is a folder containing updateable leaflets containing programme information, along with current Task flyers.

The brochure has proven to be a very useful promotional aid. The brochure with current flyers and DSM Programme information is attached.

- Publications Management and Promotion – The web site provides downloadable reports, brochures and presentations for the new, current and completed Tasks. A "Key Publications" page provides access to the principal Programme outputs; others are available via the Task areas of the site. Programme publications including the Annual Report and the Spotlight Newsletter are also available. Task reports are summarised in the "Spotlight Newsletter".

The publications in the Library are categorised as:

a) "Current" – Information that is readily available.
b) "Available through the Operating Agent only" – Where proprietary information clauses are still enacted by the participating countries and contact with the Operating Agent must be made.
c) "Archive" – Listed but not available to the public

The Operating Agents are required to submit their reports to the web-based Library and the Webmaster is required to promote and disseminate them appropriately and according to the Task Information Plan.
Country specific information is kept in a repository, which the Executive Committee members, Operating Agents and experts are encouraged to upload.
Task Information Plans – Task Information Plans are developed during the concept development stage. The Visibility Committee has during the reporting period improved the structure of these plans and how to aid the Operating Agents in the effective promotion and dissemination of Task reports. Task reports are generally disseminated by the Operating Agent to the Executive Committee members of the participating countries and to the Task experts who are then required to disseminate to pre-determined target audiences.
Review of Information Activities – Effectiveness reviews are routinely carried out on each of the DSM programme's main information activities, namely:

a) Annual Report
b) Spotlight Newsletter
c) Website and related functions

The Chairman of the Visibility Committee presents reports on these evaluations to the Executive Committee. The Executive Committee is invited to provide feedback and the Visibility Committee is responsible for making the necessary changes.

Further scope for technology transfer to non-IEA member countries and any plans for such

The Implementing agreement attended a number of NEET workshops and invited several non-member countries to their EXCO meetings and workshops. Among them are Kuwait, Saudi Arabia, Thailand.

Transfer Hans add something here.

SCALE OF ACTIVITIES

Meetings

During the review period (2008–2012), a total of 10 Executive Committee meetings were held by the Programme. Over 236 people attended those meetings.

Meeting type	*No. Mtgs.*	*No. Participants*
Executive Committee meetings	10	236
Task Experts meetings	???	???
Open seminars and conferences Executive Committee	10	Approx. 500 people
Task seminars and conferences	?	???

A breakdown, by Task, is shown below:

Anne fill in here when OA's respond…

Task:	Experts Meetings 2008–2012		Seminars & Conferences/workshops 2008–2012	
	Number of Meetings	Number of Participants	Number of Meetings	Number of Participants
Task 15	1	?	1	15
Task 16	10	89	10	445
Task 17	8	?	4	?
Task 18	3	?	-	-
Task 19	5	44	-	-
Task 20	2	15	-	-
Task 21	?	?	?	?
Task 22	2	11	-	-
Task 23	2	14	1	5
Task 24	5	53	3	109
Executive Committee			Seminars & Conferences 2008-2012	
Executive Committee			10	500

It should be noted that the Programme occasionally holds meetings with senior representatives from industry and government of the country that hosts an Executive 0Committee meeting or Task experts meeting. During such meetings, the Operating Agents highlight recent accomplishments of their Task that should be of special interest to the invited participants, and the host country has an opportunity to inform the Executive Committee members of important recent developments in their country. The meetings raise awareness of the Programme within the host country and assure that the Programme has an understanding of the current situation in the host country.

(23) Costs:

In 2012, the total value of the DSM programme's work was approximately EUR **?????** supported by USD Programme administration budget, or about ???? % of the total Programme Value. Similar amounts are expected for 2013.

(24) Cost sharing:

Appendix - The IEA DSM 2008 – 2012 Evaluation, A synthesis of the questionnaire.

1. Value of the Output from the Programme

The output from the Programme seems to be relevant for the participants. The output is even deemed to be, in some instances, innovative. The scope of the Programme however seems to be a problem. Not necessarily that it is wrong but it is complicated. Comments are made that it is being wide, being policy-related (rather than technology) and being in risk of duplication with other IAs. The duplication risks mentioned relate to IAs: 4E, ISGAN, SHC, and ECBCS.

The participants seem to both have a difficulty in positioning of the Programme (relate it to other (technology-oriented) IAs) and to communicate the Programme scope (idea) to decision-makers and stakeholders in their surroundings. Partly the terminology and concepts are found confusing, which could depend on that the DSM-concepts are archaic since they were developed as far back as 30-40 years ago?

There is a lack of visibility and dissemination of the work in such a format that enables outside uptake of experiences/results. This limits the value to a restricted group of task participants and for the limited time of task-duration.

COMMENTS (1):
The overlaps should be reduced by the existing internal IEA co-ordination groups for buildings, energy and renewable fuels. The concepts are fairly well described in the existing strategy (2008-2012) but the text is not easy in particular for someone that is not involved in the daily work Dissemination remains a problem and has at least 2 faces. One is to make stakeholders aware of the subject and the work. The other is to make the results accessible in wider circles both among

2. Applications In national policies

The application of results from the work, thus being channeled into national policies, seems very limited for national policies. With the exception that the work might have inspired national activities and stakeholders. In spite of the somewhat restrained comments on general applications there are several examples where very practically oriented work regarding e.g. technology procurement (III),

Demand Response (XIII and XIX), ESCO and EPC (X and XVI), “White Certificates” (XIV),Verification and Calculation (XXI), and EERS (XXII), have been “fed in” to local actions. To some extent material has also been used for capacity building in participants’ own organization.

Recent events, such as the Fukushima incident, have also motivated governments to rethink their energy policies and put more emphasis on DSM-actions. When (and if) this happen some of the past work may be particularly useful. Participants to some (but very little) extent seem to brief stakeholders in their constituencies about work (tasks) when started and terminated. This could happen either in direct briefings or in workshops.

The variety of DSM-measures has a value in that it can be shown to policy-makers that there is a multitude of options and that several of them brings not only economic benefits.

COMMENTS (2):
The crucial issue here seems to be accessibility and availability of material that is of such a format (length, language) that addresses the concern of important parties such as decision-makers in departments, states, regions and administrations. To the extent that there is a trend to make use of Energy Efficiency Obligations this may call for renewed actions to bring in utilities and their associations to have an exchange on what works and what doesn't. The same for

3. Applications in Industry

There is a difference in the participants view on industry. Most refer to utility business and service providers whereas others primarily think of industry as users of energy. For the former there are clear cases of how ESCO-EPC (XVI), DR (XIII and XIX) and Integration (XVII) material has been of interest and been applied in developing business-models as well as simulating operations.

For the latter there is less such evidence, but the development of smart grids have been indicated as serving also local production of energy as well as more sophisticated control.

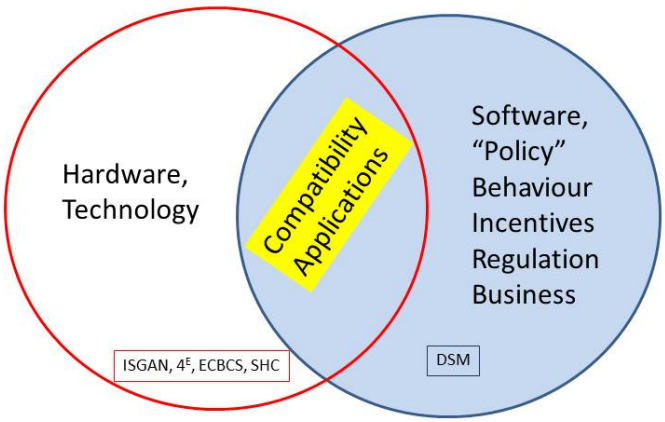
This might be a new focus area in particular with a more defined collaboration with e.g. ISGAN to deploy "Smart Applications" making use of the full range of DSM-activities.

COMMENTS (3):
This might be a new focus area in particular with a more defined collaboration with e.g. ISGAN to deploy "Smart Applications" making use of the full range of DSM-activities.

4. Application with endsers

Task XVI and in the future Task XXIII and XXIV seems to be those that have most relevance for end-users.

5. Overlap in particular within the IEA)?



There are several recorded assumptions (or fear) of overlaps. Most (all of them?) seem to be related to IAs who primarily deal with hardware technology issues and where we deal primarily with software policy matters. To the extent that there is a real overlap these should be fairly easy to reconcile (see figure).

The possible overlap between the DSM-Programme and the IEA secretariat is also mentioned. Which should be possible to handle with a more dedicated secretariat involvement. It might be possible to illustrate the relation between the two main strands as two circles with a partial overlap and define the area for common issues.

Overlaps with other outside programmes, with European Commission (EC) and IPEEC[14] are mentioned, should also be considered but cannot be as easily handled within "the family".

Such overlaps can be more genuine, but nevertheless be reconciled. The EC participates in some of the IEA IAs working with Renewables. IPEEC is drawing upon the IEA secretariat resources which should, in principle, allow for a harmonic development An overlap issue is the emergence of new and related networks. IPEEC has been mentioned. The Clean Energy Ministerial [15]has launched several projects. IRENA[16] might be involved in some actions that relate to DSM and utilities.

The advice to avoid duplications however acknowledges both that complete avoidance cannot be expected and that some overlap might be a part of a creative/innovative process. That said, it is important that preparations are thorough enough. Potential overlap should be a title in the preparatory documentation. Common and back-to-back ExCo meetings was suggested as well as invitations to other IAs that may be concerned as guest at ExCo meetings.

6. How does DSM complement others (in particular within The IEA)?

Reasonably the DSM-Programme should have a distinct profile different from many others,

COMMENTS (5):
We need to reiterate that the IEA secretariat has a crucial responsibility for the co-ordination both between IAs and between themselves and the IAs as well as for the "bigger picture" of global sustainability work. The backbone of this is the desk-officer function which would require a closer and more determined participation from them. The combined function of IAs and secretariat could be a very strong unit that might allow more joint forces instead of splits as happen today when new initiatives mushrooms. The secretariat managed Co-ordination groups, that imply that all IAs are invited once a year to discuss co-ordination among them, are good but needs to be elaborated by allowing IAs to closer follow each other by use of web-functions. The preparatory work for new tasks should take not only overlaps but also possible joint interests into

see figure above. This has however not been communicated or understood in full. The complement that seems to be the most important is that related to smart grids (ISGAN), which is so much more important after an ISGAN workshop where their focus on applications is DR (XIII, XIX and XXIII) and Integration (XVII) but also Behaviour (XXIV) though they have not yet managed to articulate that. An aspect put forward is the DSM-Programme relevance for resource planning and investment which is covered at least in part in e.g. Task XV (Network Driven DSM) but also requires that several task results are pulled together and synthesized.
The IEA internal organisation with EEWP and EUWP was mentioned as both an opportunity and a problem. Maybe EEWP should be better informed about our activities..

[14] http://www.ipeec.org/default.aspx
[15] http://www.cleanenergyministerial.org/
[16] http://www.irena.org/home/index.aspx?PriMenuID=12&mnu=Pri

COMMENTS (6):
A start for any improvement of co-operation must start with a better communication (and possibly rephrasing/definition) of our work, call it DSM or whatever. In doing so we also must define (name) receivers of output in categories, define topics of work and possibly refine products to communicate.
Considering the amount of initiatives that comes from several other organizations (see 3 above) and the growing mutual interest among IEA IAs there could be a case for a "formal" SWOT-

7. The DSM portfolio—Additions and priorities

There is a huge amount of suggestions on both work and the ranking. In the following there is an attempt to bring some order, but there are still many cross-cutting opportunities between the entries. It was pointed out that there is no obligation to cover the entire field of possible DSM!

BUSINESS AND GOVERNANCE
a) Business Models/Conditions. A vast potential for energy efficiency is recorded and some of the barriers addressed whether they are institutional or behavioural. But business organisation remains a problem. Energy Efficiency is technically easy but organisation of the delivery is still complicated. Business is not staged and prepared to deliver Negawatthours
b) Management of releasing Energy efficiency as a resource. Related to the above governing a system that delivers energy efficiency as standard remains a problem. Actors, Financing, Calculation including all benefits, etc.
c) Country Specific analysis and calculation of the potential. Many agrees on DSM activities in general and as a principle, but the way forward may have to be more well defined/illustrated to get attention.
d) Pilot Projects (documented) – Best/Worst Practice? To give features and examples whether to follow or avoid.
e) Municipalities. In many parts of the world municipalities take their own initiatives and show great innovativeness that can be multiplied.
SMART APPLICATIONS
f) Demand Response. A huge area but important as a part of the "smartness" of the system. Finland has provided a catalogue of aspects that should be considered.
g) Smart use of the power e.g. for mobility (charging of vehicles)
h) Local Generation. Onsite generation and storage for more reliable systems. Other remarks

COMMENTS (7):
Our "Cluster" organization is based on technical consideration but there may be a need to consider a different "clusterisation" that focus on the actors that should implement the results.

were that DSM does not necessarily require high-tech. installations, that we may need some more long-ranging projects but still being able to deliver more fast responses to distinct problems and finally that there is a need for increased involvement of industry and local government.

8. Internal

Operational issues There is a general satisfaction with the way the programme is managed. Some criticism to the way that the tasks are run in particular when the deliver too late and need extensions to complete the work.

There are however several ideas on improvements. One concern is the dissemination which is judged to be weak. Another is the slow start of projects. A third is that the need (and interest) in energy efficiency is more important in the world outside the present participants – are we addressing the right issues and right partners today?
The ExCo-meetings are highly valued for their opportunities to exchange views even if there are some feelings that twice a year is too often OR that we could make use of web meetings as a complement. The ExCo meeting format could be widened e.g. with brainstorming sessions. More active ExCo-delegates also between the meetings would facilitate and drive the task experts to deliver more accurately.
The social network might be more used as a tool for exchange of expert views. Some suggest

COMMENTS (8):
Part of the problems could be handled with more active ExCo-delegates between meetings. Maybe those who participate in a Task should have midway-web-conferences between ExCo-meetings to make sure that the task experts and the OA stays on track. The DSM-University idea needs to be developed further with the main task to make material accessible and available and target it to wider audiences. The cluster organization (see above) may have to re-considered and developed. We may need "cluster-chairs" that keep track of work and of work preparations. There could be a case for "fast tracking" to solve problems in partnership between just a few participants and then these may find if there is a need to go further and develop new Tasks. Our presence in the ASEAN-region and together with APEC (who already has established

independent external evaluations of the work. Categorization of membership based on "country-size" has been used from the beginning of the Programme but has since been changed to equal fees for all.

9. Communication

The existing means, website, newsletter and Facebook are generally appreciated. There is a need to distinguish between the strategic communication and the operational, but we must also limit our ambitions and understand that we will never be strong enough to be a policy driving force.

DSM hot topics could be subject for webinars.

COMMENTS (9):
Should ExCo-delegates be more active in dissemination and in social media? We need to build partnerships and alliances in a more effective way both to gain visibility and to pave for

The website is a bit too static and information (even if standardised) on tasks are not easy to find. Maybe they should have their own websites. More linking with other IAs (joint workshops) and with research activities within the participating countries. We should seek publicity in journals more often.

AGENDA 7a. (41st meeting of the IEA DSM Programme)

Document L

Visibility Committee Report

March 2013

Sea Rotmann

The Task Status Report is submitted to the IEA DSM ExCo in Utrecht, the Netherlands with a request to:

- Approve the Visibility Committee Report

DOCUMENT

IEA DSM PROGRAMME VISIBILITY COMMITTEE REPORT

Submitted by Anne Bengtson, Executive Secretary and Dr Sea Rotmann, Visibility Committee Chair

Annual Report

The 2012 Annual report, including a Theme Chapter on "Smartness Requires DSM" was made available electronically to ExCo members by the end of January and was uploaded to the IEA DSM website. Printed copies (250) were sent out in March to the EUWP, EEWP, ExCo Members and Operating Agents. Executive Committee Members and Operating Agents should ensure that copies are distributed to all interested parties.

Issues

None

Website

All ExCo delegates and Operating Agents are strongly encouraged to review the whole website regularly, particularly areas relevant to their activities. It is very easy for information to become out-dated. Operating Agents have considerable freedom to keep their own Task areas up to date, but other feedback, reporting of functions that appear not to work and suggestions for further improvements should be made via Anne Bengtson anne.bengtson@telia.com and/or the Visibility Committee. In particular, we would be interested to know how useful the social network links are.

Statistics

Total website hits:

March 1st, 2011 - February 28th, 2012 – 878 186 visitor hits
March 1st, 2012 - February 28th, 2013 – 1 103 866 visitor hits

Hits per day:
March 1st, 2011 - February 28th, 2012 – 2703 per day
March 1st, 2012 - February 28th, 2013 – 3374 per day

Download information for Tasks – see attachment.

Issue
Need a more detailed analysis using Google Analytics that can track/identify traffic, how long they stayed, country etc.

Website Solstice
Solstice proposal for further developments

Solstice has not proposed any further developments.

Issues

1. We would welcome suggestions for further developments
2. Members should review the website regularly

Spotlight Newsletter

In 2012 four DSM Spotlight newsletters will have been published. It is proposed that the same be done in 2013.

To date the following 2012 – 2013 newsletters have been published and are posted on the DSM website:

- Issue 44/March 2012
- Issue 45/June 2012
- Issue 46/October 2012
- Issue 47/ December 2012
- Issue 48/ March 2013 – DELAYED because of too little input from ExCo members/OAs

The next issue will be published:

v. Issue 48 in April 2013

Articles in Issue 47:
Task 21 report, Task 23, New Zealand joining the Programme, Chairman's note – recap of IEA DSM activities and accomplishments and plans for 2013, Hans Nilsson recap of DSM in 2012 and hopes for 2013.

We are grateful to all the ExCo members and OAs who have contributed articles to the Spotlight Newsletter in 2012 and hope they will continue to do so in 2013, however the first issue has been difficult to fill. In 2013 the Editor looks forward to highlighting not only the Task work, but also DSM work in the Member countries.

The Programme has tremendous news to share so please continue to think about, suggest and submit future articles. The Editor is happy to work with you on an article in any form – completed article by you or someone else, information for an article that you would like for the Editor to write, a conference paper that the Editor can convert into a newsletter article or just an idea that you think would make an interesting article. If you have an article to contribute, please email it to Pamela Murphy [pmurphy@kmgrp.net].

Issues
With four newsletter issues published in 2012, it is proposed that the same be done in 2013.

The proposed schedule for 2013 is:

w. **Issue 48/March 2013**
    1. Articles due: February 1
x. **Issue 49/June 2013**
    1. Articles due May 10
y. **Issue 50/September 2013**
    1. Articles due August 10
z. **Issue 51/December 2013**
    1. Articles due November 10

Brochure

Comments on the format, style and content of the brochure and the inserts are welcome. The inserts were last updated in October 2012.

Issues

Please provide comments on the brochure and its contents at the November ExCo.

Task Flyers

Task flyers Task 17 and Task 22 need to be updated to reflect results in Phase II of Task 17 and the completion of Task 22.

Social Media

The Implementing Agreement is getting more traction on social media. We now have a presence on:

14. facebook (IEA DSM Group) with 85 members and growing. Even though most posts are by Anne Bengtson, Rob Kool and Hans Nilsson, there are regularly posts and questions by other participants;
15. LinkedIn (IEA DSM Group) with 31 members and slowly growing. Most posts are by Anne Bengtson and Sea Rotmann. We would need to actively invite people into this group in order to achieve the professional reach that LinkedIn could afford.
16. Twitter (@IEADSM) with 122 followers and 274 tweets. This is the fastest growing social media platform and has fostered some good engagement, retweets and mentions. Sea Rotmann is posting for this group.
17. IEA DSM Youtube Channel - needs to be populated with some relevant videos. Sea Rotmann has proposed to use some of the 60+ Task 24 videos for this channel. If we start filming some ExCo workshops, this would be a great channel to distribute visual information fast.
18. IEA DSM Task 24 Expert Platform - 150+ members, invite-only (www.ieadsmtask24.ning.com). Very successful multi-media platform to distribute findings from Task 24, could be used for other Tasks, but only if they follow a similar, open dissemination strategy. Platform had 1500 visits already, average page view for new visitors is 8 minutes 30 seconds. The platform is also linked to a dropbox, a Wiki and a twitter account and includes 63 videos, 59 photos, 3 blog posts, over a dozen discussions, all events associated with the Task, 2 Subtask Groups and member chat and email functions and all expert's short biographies and interests.

Communications Plan and Dissemination Strategies

The Visibility Committee is currently working on a draft communications plan for the Implementing Agreement. In it, we will analyse in detail our communications history, what works and what doesn't, who our audience is and how well we service them and how we can improve our plan going forward. It will ultimately include individual Task Dissemination Strategies to ensure that the website, Spotlight newsletters and social media channels are utilised well by all Tasks to report their findings and other relevant events.

Dr Sea Rotmann
Visibility Committee Chair

Anne Bengtson
Executive Secretary

ATTACHMENT A
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* Participated at the Executive Committee meeting in Espoo, Finland, 16-17 November 2012

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International Energy Agency

March 2013

Secretariat Report for DSM ExCo

Forthcoming IEA technology publications

1Q2013

- Resources to Reserves
- Energy Technology Initiatives
- Technology Roadmap – Chemical Catalysis
- Policy Pathways - Building Energy Codes; Improving Urban Transport System Efficiency

2Q2013

- CEM Input: Clean Energy Progress Tracking Report
- Medium-Term Renewable Energy Market Report
- Manual on Energy Efficiency Indicators Development
- Technology Roadmap – CCS update
- Technology Transition for Buildings – Strategies and Opportunities to 2050
- How2Guide – Smart Grids

3Q2013

- Technology Roadmap – Wind update
- Technology Roadmap – Buildings Shell
- Policy Pathway – Building Energy Codes

4Q2013

- Technology Roadmap – Photovoltaics update
- Grid Integration of Variable Renewables – the Economics of Flexibility

End Use Working Party (EUWP)

Administrative activities

Last plenary of the EUWP was held on 20-21 September 2012 in Paris, several administrative decisions were taken:

- Adoption of the following documents: Terms of Reference and Election Procedure for the EUWP Chairs and Vice-Chairs, EUWP Standard Procedure, Request for Extension of the Mandate of the EUWP for the Period 2013-2015
- Election of the new Vice-Chair for Industry, Ms. Carol Burelle (EUWP Canadian Delegate)
- The EUWP recommended the extension of term for the Heap Pumping Technologies and Advanced Materials for Transportation Implementing Agreements (IAs), as well as that Energy Technology Data Exchange and Energy Technology Systems Analysis Programme Implementing Agreements report directly to CERT.

The next EUWP Plenary session will be held on 21-22 March in Brussels organised with a back-to-back Technical workshop on 20 March on Energy recovery as an energy efficiency enhancer in Industry.

International Energy Agency

March 2013

Strategic activities

The EUWP Strategic Plan for 2013-2015 was approved by CERT in November last year. This document outlines the strategic lines of the EUWP as follows,

- Support the work of end use technology IAs by providing guidance, advice, recommendations, by facilitating effective operations and dissemination of results.
- Filling the technology gaps in the energy system by proposing new and better co-operative actions.
- Effectively communicate the results of the technology network and deliver technology advice and recommendations to the CERT.
- Facilitate the participation and involvement of the private sector and partner countries in the activities of the EUWP.
- Increase the added value of productive outcomes to the benefit of the CERT, the technology network and the IEA Member countries.

The EUWP has been working on those action lines,

- **Strengthening the End-Use Technology Network (EUTN):** A new system for IAs to report the EUWP was approved in March 2012 aiming to make feasible that technology advice and recommendations flow in an effective way from the IAs to the EUWP and to the CERT and another interested parties, strengthen the EUWP Delegates awareness of the extensive cooperative work undertaken by the IAs and promote the participation of the EUWP Delegates in the IAs Executive Committees meetings, and facilitate the EUWP recommendations and guidance to be provided to the IAs. The EUWP Cabinet distributed a guidance note to the Implementing Agreements and an engagement note to the EUWP Delegates.
- **Cooperation with other bodies**: The EUWP has been exploring cooperation channels with other Woking Parties.
    - A joint session was organised with the Energy Efficiency Working Party (EEWP) at the September Plenary session where it was agreed to keep a back-to-back structure for the plenaries of both Working Parties at the Autumn session, in addition a analysis of potential synergy areas between the Energy Efficiency Unit and the ongoing annexes/tasks of the Implementing Agreements was performed.
    - There has been conversations at the Secretariat level with the Fossil Fuels Working Party (FFWP), specially on the synergies between the new Gas and Oil Technologies IA under FFWP and the EUWP IAs.
    - A synergy analysis has been performed between the annexes/tasks work scope of the Renewables Energies Working Party (REWP) and the EUWP to explore further collaboration channels from the already existing active cooperation between both groups at the IAs level. A EUWP representative will report at the coming REWP Plenary.
- The EUWP has been working in **filing the existing technology and systems analysis gaps within the EUTN**. There was an initial session on this subject at the last Plenary (Sept 2012) where the discussion focused on the Industrial and Transport sectors. The EUWP Cabinet has been maintaining several side meetings on these areas and the topics were discussed at the Contact Group Meeting level as well. Two proposal notes to the EUWP Delegates which will be further discussed at the coming Plenary.
- The Secretariat and the EUWP are currently working towards a **structured cooperation to provide relevant input to major IEA publications** (ETP, Roadmaps), aiming to concentrate the IAs technology contribution and the EUWP Delegates strategic view. The Secretariat has

released a cooperation proposal note for the ETP project which was approved by CERT last February and will be discussed at the coming EUWP Plenary.

The EUWP strategic actions related progress and future steps forward will be assessed at the coming Plenary session (21-22March).

Sectorial Coordination Groups Meetings

Buildings Coordination Group Meeting, 29-30 January 2013

Transport Coordination Group Meeting, 7 February 2013

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Energy Technology Perspectives

Energy Technology Perspectives (ETP) is the IEA Secretariat's most comprehensive project on energy technologies. The project typically involves more than 50 internal experts in all directorates and draws heavily on input from the IEA Energy Technology Network (the Technology Network). It is carried out in the Directorate of Sustainable Energy Policy and Technology (SPT) with a core team of some 20 people.

The ETP project should:

- Guide short-term policy action by providing advice on which policies are best suited to bring about necessary technology changes in the long term, in a cost effective manner.
- Be a continuous, transparent and collaborative effort between the IEA and external stakeholders.
- Provide authoritative analysis on technology contribution – and its limits - to sustainable policy objectives.
- Be a focal point and communication channel for the CERT and the Technology Network to provide policy advice to IEA bodies and other stakeholders.
- Act as an umbrella for the IEA work on energy technology and aid strategic planning in that area.

Since its inception in 2006, ETP has been a biannual publication. In order to strengthen our presence and be more continuously active in the public debate, ETP will be turned into an annual publication. The release of the printed publication will also be moved earlier in the year, tentatively to mid-April.

For the printed publication, a general structure will be developed that recurs year on year. It is proposed that the book be split into two parts:

- Part 1. Tracking Progress. This is where we set the scene, provide a snapshot of the core scenarios as a backdrop to the analysis, highlight what is new since previous edition and track progress against near-term milestones. This part would stay similar year on year.
- Part 2. Driving the Change. A set of specific technology issues, potentially revolving around a common theme, will be analysed each year. The overall structure will remain between editions, but the specific issues will change. The focus will be on assessing the impact and potential role different technologies or policies could have on the overall energy system, using a "what if?"– approach. This part will also contain a focus on technology issues in a Partner Country or region.

Finally, it is hoped the updated vision for the project will be a driver for closer links between the work of the IEA Technology network and the analysis of the secretariat. This would allow more of the technology work in the network to feed into the ETP project and allow the technology network to leverage the ETP brand.

As collaboration between secretariat staff, the CERT, Working Parties and many IAs is already happening, it is hoped that a better flow of information between the IEA secretariat and the Technology Network as well as within the Network itself will enable synergies through co-ordination and strategic planning of work programmes. A tentative proposal for increased communication is as follows:

- CERT would be continuously updated on progress and plans in the ETP project, and would provide feedback on the impact assessment of the most recent report, as well as on the communication strategy and messages for the following year's report. This could be done in a workshop format together with the Standing Group on Long-Term Co-operation (SLT).
- WPs would act as the main point of contact to channel information between the IAs and the ETP project management. Throughout the project cycle, the WPs would be briefed about ETP plans and would then provide advice on what role could be played by relevant IAs, providing strategic feedback about on-going or planned work in the IAs that could be of relevance for ETP.
- The IAs and their annexes are where the working level exchange of information happens. Secretariat desk officers are formally charged with the direct communication with the IAs. The primary channel for strategic information exchange would be through the WPs, but the on-going and informal dialogue that in many cases is already happening will still be central to the success of the collaboration.

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Technology Roadmap Series

The IEA has currently published 17 global roadmaps and 2 national roadmaps on wind in China and cement in India. Global roadmaps released in 2012 include, Bioenergy for heat and power, Solar heating and cooling, Fuel economy of road vehicles, Hydropower and High efficiency low emissions coal fired power. Since June 2012, the IEA roadmaps webpage has received 18 000 visitors. The Secretariat is currently working on an additional 3 roadmaps (chemical catalysis, energy efficient building envelopes, hydrogen and energy storage) scheduled for completion in 2013 and 2014. The IEA is evaluating opportunities to develop additional technology roadmaps including hydrogen and ocean energy. Additional national roadmaps on solar energy technologies for China and South Africa are being developed with technical support from the IEA and support wider implementation of the global roadmaps.

Existing roadmaps are also being updated based on the level of change since their release. Updates that will take place during this biennium include CCS, wind, solar PV and nuclear.

International Energy Agency

March 2013

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IEA CHP/DHC Collaborative

Combined Heat and Power (CHP) and District Heating and Cooling (DHC) are attractive to policy makers and industry because they deliver a variety of energy, environmental and economic benefits, which stem from the fact that these applications are inherently energy efficient, providing a transition to a low-carbon future. Their benefits include: dramatically increased fuel efficiency, reduced CO_2 emissions, cost savings for the energy consumer, and beneficial use of local energy sources (particularly through the use of waste, biomass and other renewable sources, as well as waste energy).

The IEA International CHP and DHC Collaborative was initiated in 2007 with the goal of accelerating deployment of cost-effective, clean CHP and district energy technologies, leading to increased use of renewable energy, reduced CO_2 emissions and increased overall efficiency of the energy system; and of providing a platform for stakeholders to share best practices policies and experiences and applied solutions on these technologies. This initiative has completed several publications which provided a vision of CHP and district energy potential, along with an overview of policy best practices and recommendations of options to consider when implementing these policies. The Collaborative results also highlighted the benefits of an integrated energy system approach with co-generation technology assisting in balancing electricity production from variable renewables.

The IEA has recently re-launched Phase III (2013-2014) of the CHP and DHC Collaborative at a joint workshop with the CHP and DHC Clean Energy Ministerial Working Group last February in Paris. This next phase will build from and advance the findings of the previous studies. In particular, a key need for a step change in the deployment of these technologies which hinges on elements such as an appropriate regulatory framework which could complement the promotion of energy efficiency and renewable energy sources, as well as the existence of a heat-demanding market where CHP and District Energy could show their added-value. The existing regional differences when analyzing those aspects constitute a crucial element to be deeply understood in order to provide relevant policy recommendations, as well as a systems integration perspective to analyse the full potential that these technologies can offer in the overall energy picture.

The IEA CHP/DHC Collaborative Phase III programme of work was presented during the second day of the workshop. The programme is intended to help overcoming the main barriers and concerns raised, and it is compounded by three main pillars, namely:

- Country specific reports (scorecards), which aim to provide key policy recommendations concluded from specific analysis of the CHP and DHC market and regulatory framework at a national level of the selected countries.
- Development of a compendium of case studies of industrial CHP and integrated applications of CHP within DHC networks, including the business model and the financing mechanisms used to develop and operate the projects.
- Improvement of CHP/DHC related data. The Collaborative is intended to be a platform to support the exchange of statistical information from the National Agencies and Industrial Associations in order to provide more detail data to improve the resulting analysis.

International Energy Agency

March 2013

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Energy Efficiency Market Report

This new product was presented at the September 2012 EEWP meeting, where it received strong support. IEA senior management is also very supportive of this EE market report, which complements the agency's other market reports and helps to reinforce the concept of EE as another fuel. The report is a priority project for EEU for 2013. The market report complements the WEO2012 and ETP modeling work for energy efficiency by addressing how the market is developing as compared to the IEA's scenarios, such as the WEO's long-term NPS and EWS scenarios. The market report takes a medium team perspective and seeks to develop understanding of the investment trends, current status, and medium term (5 year) prospects in a number of key global markets for energy efficiency. The report will, among other things:

- analyze the state and progress of energy efficiency by assessing investments and outcomes in key measurable markets,
- assess the value of the outcomes generated by these investments, and
- inform policy makers and investors of the likely opportunities for further investments and how governments can usefully create supportive environments for investments.

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Multiple Benefits of Energy Efficiency

The first workshop on the macroeconomics of energy efficiency was held at the IEA on the 24th and 25th of January. The meeting was a huge success, exploring a number of key issues:

(i) Correct modeling methodologies. There is a greater need to improve macro-economic modeling and evaluation of EE policies than to develop macro-economic models for energy efficiency policies. The micro-economic cost effectives of energy efficiency is robust and with improved assessment of the diverse outcomes should be adequate

(ii) Rebound. A growing sense that rebound can be desirable – e.g. a developing country will prefer rebounded improvements in services and consumer surplus.

(iii) EE investments crowding out other investments. Investments must be additional and shouldn't crowd out other capital if they are to contribute to growth.

(iv) Analytical needs of policy makers. Policy makers need better valuation of the different macro-economic outcomes, and recognized objective evaluation tools.

The next event is a workshop focused on health and well-being benefits scheduled for April in Copenhagen, hosted by European Environment Agency. The main output will be a guidebook/toolkit on assessment and evaluation of the multiple outcomes and benefits for energy efficiency, that will include practical evaluation tools for the different outcome benefits. These are scheduled for early 2014. This work is designed to support efforts to scale up energy efficiency by increasing the number

of stakeholders who perceive themselves to benefit from EE activities (including ministries of health, as well as central and local budget ministries).

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Financing for Energy Efficiency

Two energy efficiency finance publications were launched in January.

(i) **Mobilising Investment in Energy Efficiency: Economic instruments for low-energy buildings**, addresses the fact that, to date, relatively little effort has been directed toward evaluating how well economic instruments work. This book helps policymakers select and design economic instruments appropriate to their policy objectives and national contexts. This report examines how economic instruments are currently used in energy efficiency policy, considers how economic instruments can be more effective and efficient in supporting low-energy buildings, and assesses how economic instruments should be funded where public outlay is needed.

(ii) **Plugging the Energy Efficiency Gap with Climate Finance** examines the current role of climate finance in funding EE projects and the potential to channel funds to relevant EE projects in developing countries under the new Green Climate Fund (GCF) by examining: the share of climate finance currently being channeled to energy efficiency measures, and how the design of climate finance can better facilitate energy efficiency projects. The report focuses primarily on public climate finance flows from "north" to "south", probing the current use of funds from multi-lateral development banks (MDBs), bi-lateral financial institutions (BFIs) and carbon markets for energy efficiency projects and the design of the future climate financial mechanisms such as the Green Climate Fund to encourage energy efficiency improvements in developing countries.

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Appliance Efficiency: Policies to address Stand-by power in an internet connected world

The IEA network standby project is progressing according to plan. A joint IEA/IEA 4E/SEAD workshop was held in Toronto 7-8 March attended by 30 experts (policy makers, industry, representatives from standardisation organisations, researchers, associations, NGOs). The workshop focused on current policy approaches, industry perspectives, role of industry-driven initiatives, ongoing standardisation activities. Information from the workshop will be posted on the IEA website. Key issues discussed during the workshop included that due to the heterogeneity of network connected products, as well as interdependencies in networked systems - a fully horizontal power limit across all networked products may not be appropriate. Discussions also highlighted the need to look at total energy consumption across all modes and not just low power mode or standby power consumption. Discussions also centred around the need for more flexible policy frameworks or combinations. A draft policy framework document has been developed and is being discussed with stakeholders. A publication providing a state of the art overview of the topic of network standby and

actionable policy guidance on measures will be forthcoming at the end of 2013. A conference will be held in Paris in September focusing on how to move forward in terms of ensuring that smart systems and end-use products are energy efficient. The IEA Energy Efficiency Unit would be more than happy to discuss further with DSM regarding possible synergies and cooperation opportunities.

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Utilities. Policies for Energy Provider Delivery of Energy Efficiency (PEPDEE)

This highly successful workstream on policies for energy provider delivered energy efficiency has demonstrated a huge potential for working with gas and electricity providers to scale-up energy efficiency. A final report on the PEPDEE work stream was posted on the IEA PEPDEE web site in early February. With publication of this report the outputs in the activity have been completed. The work so far has uncovered many opportunities for future action, such as (i) adding regulatory mechanisms and energy efficiency delivery schemes to the policies and measures data base, and (ii) undertaking collaborative work with member governments on fine-tuning such policies as secondary markets (White Certificates) and 3rd party option. EEU is exploring opportunities for further work in this area.

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IEA OPEN Energy Technology Bulletin

News from the IEA Technology Network

www.iea.org/impagr/cip/index.htm

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IEA DSM TASK XVI:
Competitive Energy Services – Phase III

Energy Efficiency and Demand Response Services

Task Status Report

prepared for the IEA DSM ExCo meeting
in the Netherlands, April 25th-26th, 2013

Task XVI
"Competitive
Energy Services"
www.ieadsm.org

Graz, Austria, March 2013

Legend, Synopsis and Authors

This report was developed within Task XVI "**Competitive Energy Services** (Energy-Contracting, ESCo Services)" of the IEA's Demand Side Management Implementing Agreement.

International Energy Agency
IA Demand Side Management (DSM)
Task XVI "Competitive Energy Services"
http://www.ieadsm.org

Task XVI "Competitive Energy Services" www.ieadsm.org

Synopsis:

This is the 6-monthly **Task Status Report** of IEA DSM Task XVI "**Competitive Energy Services** (Energy-Contracting, ESCo Services)" - Phase III: "**Energy Efficiency and Demand Response Services"** to the Executive Committee of the IEA Demand Side Management Implementing Agreement to be included in the pre-meeting document.

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With contributions from Task XVI national experts
(contact details on back cover).

IEA DSM Task XVI - Phase III builds on work, which was previously led by Graz Energy Agency. Thank you GEA!

Grazer ENERGIEAgentur

Financing partners

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www.bmvit.gv.at
www.energytech.at

Belgium
Federal Public Service
Economy, S.M.E.s, Self-Employed and Energy
DG Energy – External relations
http://economie.fgov.be/

Finland *(until 06/2009)*
Tekes – the Finnish Funding Agency for Technology and Innovation
www.tekes.fi

India *(until 06/2012)*
Bureau of Energy Efficiency
Ministry of Power
www.bee-india.nic.in

Japan *(until 06/2009)*
Tokyo Electric Power Company
www.tepco.co.jp/en/index-e.html

Korea *(since 07/2012)*
Korea Energy Management Coorperation
www.kemco.or.kr

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Swiss Federal Office of Energy SFOE
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*The project partners wish to **explicitly thank the IEA DSM ExCo members of the participating countries** and their **financing partners** for their support.*

Table of Content

For a summary of the background and motivation, objective, and results of IEA DSM Task XVI please refer to the task work plan or the annual IEA DSM report.

1 Participating Countries in Phase III

Currently the following countries have confirmed participation in IEA DSM Task XVI – Phase III (in alphabetical order):

- ✓ Belgium
- ✓ Korea
- ✓ Netherlands
- ✓ Sweden
- ✓ Switzerland

Pending "maybes" have been expressed by Austria, China, Germany, Norway, Portugal and Spain.

Request to ExCo members from the operating agent: Please remember to sign and send your official letter of participation for Task XVI to the IEA head quarters (a template is available from the Executive Secretary).

2 Structure of the Work and Subtasks

The proposed Task XVI Work Plan extension will continue to work with its well established structure and add demand response services as an additional subtask (depending on participation of Spain, who initiated this subtask). The five operational subtasks are:

1. IEA DSM Energy Services Expert Platform (ES-Platform, subtask 13)
2. Innovative and competitive Energy-Contracting Think Tank (Think Tank, subtask 14)
3. Demand Response services business models (DR, subtask 15)
4. Coaching of individual National Implementing Activities (NIAs, subtask 16)
5. Dissemination (subtask 17)

The following scheme illustrates the general structure and workflow of the task extension:

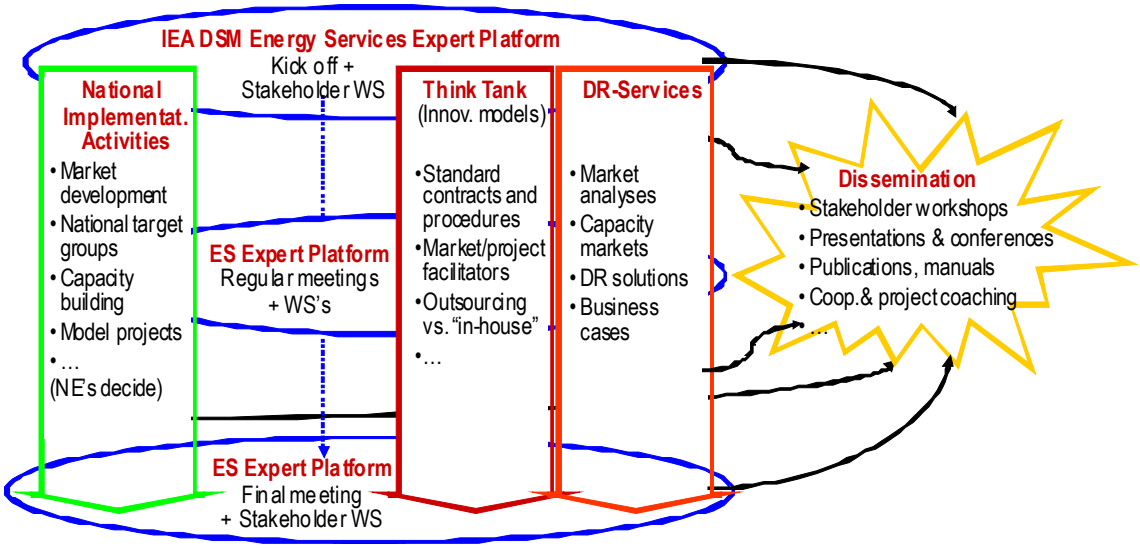

Figure 1 Task XVI - Phase III: Structure and work packages

In the left pillar, the national implementing activities (NIAs) such as market development and capacity building activities take place according to the individual needs and resources of the participating country. In the other two pillars, "Think Tank" and "DR-services", the experts will discuss new developments and elaborate innovative energy and demand response service and business models.

The IEA DSM Energy Services Expert Platform (ES platform) serves as the link between the two pillars, as the communication tool internally and externally and as the starting point for developing services like coaching and training for the outside world (towards a "Centre of Excellence").

The results of Task XVI are disseminated in a series of stakeholder workshops, presentations at conferences, workshops and through publications. Additionally co-operations with international organizations and assistance services may be offered.

3 Accomplishments since last Report

During the last period the following activities have been performed:

- ✓ Subtask 13 – Energy Service Expert Platform
  - Preparation of the 14th experts meeting, which will be held in Toulon/Hyères, France from June 2nd-3rd 2013 (back to back with the ECEEE summer study). The main agenda items will be discussion of national implementation activities, discussions on current Think Tank topics and dissemination activities.
- ✓ Subtasks 13 + 16 – Energy Service Expert Platform + Dissemination
  - Preparation of the 14th Task XVI stakeholder workshop, which will be held in Toulon/Hyères, France on June 3rd 2013 in conjunction with the ECEEE summer study. The topic will be "the Role of Facilitators for ESCo market development".
  - During the ECEEE summer study we will also present and discuss Task XVI findings
- ✓ Subtask 14 - Think Tank:
  - Joint paper of Task XVI experts and dena: "ESCo Market Development: A Role for Facilitators to play", which was accepted for oral presentation at the ECEEE summer study in June 2013.

  Results of the think tank work can be downloaded from the public Task XVI website (www.ieadsm.org/ViewTask.aspx?ID=16&Task=16&Sort=0).
- ✓ Subtask 15 – Demand Response Services business models
  - Spain has not decided to participate, although Spain originally initiated this subtask. As a consequence other resources will need to be identified.
  - One option are national activities planned in Austria and Slovenia, in particular a research proposal for a "hybrid virtual power plant for distributions system". A final decision on this proposal is still pending, but if successful could provide substantial inputs to this subtask.
  - *Ideas for other resources or cooperation opportunities are welcome.*

- ✓ Subtask 16 – Coaching of individual National Implementation Activities
  - Implementation of the individual national activity plans to develop energy service markets were followed up, the experts gave detailed presentations and exchanged good practices during the last platform meeting and through teleconferences in between meetings.
- ✓ Subtask 17 – Dissemination: Publications and presentations at various national and international conferences and seminars were given, e.g.:
  - Two GIZ ESCo fact finding missions to South Africa in December 2012 and February 2013 were conducted with a goal to provide advice on how to structure and support ESCo market development activities in South Africa
  - Presentation of an 'ESCo university' as a pre-conference workshop to the ESCo Europe conference 2013 in Copenhagen in January 2013
  - Support for a start-up ESCo in Croatia
  - A national seminar on "Implementing Energy Efficiency. Energy Contracting vs. in house implementation" for potential new ESCo customers in Vienna.
  - Exchange with other ongoing energy service projects (IEA ECBCS – Mr. Rüdiger Lohse and IEA IETS Annex XVI Energy Efficiency in SMEs – Mr. Patrick Thollander)
- ✓ Subtask 18 – Management and Reporting: No particular activities besides regular reporting

4 Goals and work plan for the next period

For the next reporting period, the following activities are planned:

- ✓ Subtask 13 – Energy Service Expert Platform
  - 14th experts meeting, which will be held in Toulon/Hyères, France from June 2nd-3rd 2013 (back to back with the ECEEE summer study). The main agenda items will be discussion of national implementation activities, discussions on current Think Tank topics and dissemination activities.
  - Preparation of the 15th experts meeting, planned to be held in the Netherlands/Belgium
- ✓ Subtasks 13 + 16 – Energy Service Expert Platform + Dissemination
  - 14th Task XVI stakeholder workshop, which will be held in Toulon/Hyères, France on June 3rd 2013 in conjunction with the

ECEEE summer study. The topic will be "the Role of Facilitators for ESCo market development".

- Preparation of the 15th Task XVI stakeholder workshop to be held in the Netherlands/Belgium, topic tbd.

✓ Subtasks 14 + 15- Think Tank - DR Services business models

- Continuation of research on Demand Response Energy Services and possible business models as an additional source of income for ESCos.
- Comprehensive building refurbishment – cooperation foreseen with IEA ECBCS new Annex
- Preparation of next Think Tank topics as agreed at next expert meeting.

✓ Subtask 16 – Coaching of individual National Implementation Activities

- Implementation of the individual national activity plans to develop energy service markets will be followed up, the experts gave detailed presentations and exchanged good practices during the last platform meeting and through teleconferences in between meetings.

✓ Subtask 17 – Dissemination: Publications and presentations planned at:

- Presentations at ECEEE summer study
- Energy manager training for State Grid China on behalf of GIZ Germany: Investment grade calculation of energy service projects including provision of a detailed Excel tool, foreseen for June 2013
- Drafting of ESCo market development support activities for South Africa
- Application for publication of the Integrated Energy Contracting Model in a peer reviewed journal (e.g. Energy Efficiency or Energy Policy)
- A national seminar on "Implementing Energy Efficiency. Energy Contracting vs. in house implementation" for potential new ESCo customers in Vienna.
- Know how transfer and supervision of a start-up ESCo in Croatia
- Continue co-operation with other ongoing energy service projects (IEA ECBCS – Mr. Rüdiger Lohse and IEA IETS Annex XVI Energy Efficiency in SMEs – Mr. Patrick Thollander, EESI 2020 - BEA) to share information and join forces

✓ Subtask 18 – Management and Reporting (in addition to regular work): no particular activities foreseen

5 Project Time Table

The project time table and current status is shown below:

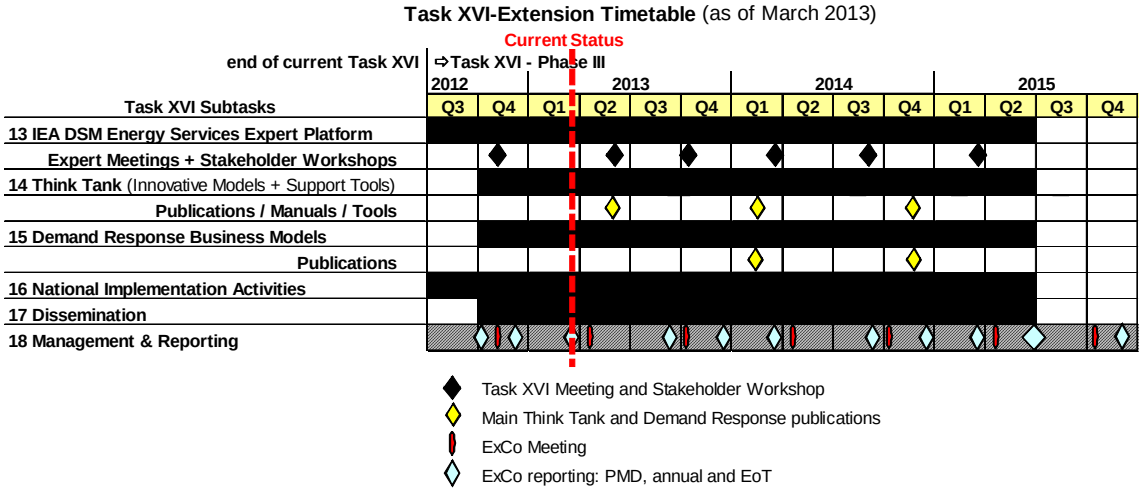

Figure 2 Task XVI time table

Time wise we have spent 8 months out of the 36 month project duration.

All scheduled events and reporting targets have been met.

6 Financial Report

The budget is based on five participating countries.

(Budget and cost accumulation by item in € excl. VAT as of March 2013)

Subtask	Total budget €	Cumulative spending €	% spent	Remaining €
13 Energy Services Expert Platform	**36.000**	**6.800**	**19%**	**29.200**
14 Energy Services Think Tank	**72.000**	**17.200**	**24%**	**54.800**
15 Demand Response ES Business Plans	**12.200**	**1.200**	**10%**	**11.000**
16 Coaching of National Implementation Activities	**12.800**	**1.800**	**14%**	**11.000**
17 Dissemination (Internat. + Nat.)	**13.000**	**2.800**	**22%**	**10.200**
18 Management & Reporting	**42.000**	**6.400**	**15%**	**35.600**
Subtotal	**188.000**	**36.200**	**19%**	**151.800**
Travel costs	**28.000**	**4.300**	**15%**	**23.700**
Printing&other	**9.000**	**600**	**7%**	**8.400**
Total	**225.000**	**41.100**	**18%**	**183.900**

Figure 3 Budget

After 8 months (out of the 36 month project duration) 18% of the budget has been spent.

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EnergInvest *(since 07/2010)*: www.energinvest.fr

Factor4 *(since 07/2010)*: www.factor4.be

Finland *(until 06/2009)*
Motiva Oy: www.motiva.fi

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