ieadsm
energy efficiency

IEA Implementing Agreement Demand-Side Management Technologies and Programmes

Fourty Fifth Executive Committee Meeting

Pre-Meeting Document (PMD) Part 1

iea Energy Technology Network

26-27 March
2015
Capetown
South Aftrica

IEA Implementing Agreement
Demand-Side Management
Technologies and Programmes

FORTY FIFTH
EXECUTIVE COMMITTEE MEETING

PRE–MEETING
DOCUMENT (PMD)
Part 1

26 – 27 October 2015
Cape Town, South Africa

Table of contents

MATTERS FOR THE EXECUTIVE COMMITTEE

Project Preparatory Committee (PPC) Report – Document C

- Approve the Report

Concept paper: Marketing Winners – Selling Super Efficiency with Sport – Document D

- The project team would like an indication of interest from participating countries to move the proposal forward to a Task Definition Phase. This will allow the development of a full budgeted proposal in support of a three-year global campaign.

- Approval of proposed Operating Agent, Verney Ryan. (Further Task development can occur over the next two to five months with the proposed Operating Agent being available to present at the next Executive Committee meeting (China) in order to officially start the Task).

Concept paper: Proposed Joint Annex… Multiple Benefits of Energy Efficiency

- Executive Committee members are invited to consider setting up a new Task according to the presentation of the paper and to invite cooperation with other Implementing Agreements to deal with specific issues in Joint Annexes.

Concept paper: Big Data and Energy Efficiency, a research area for the IEA DSM Agreement? – Document F

- Decide whether Big Data is a topic the Agreement wants to deal with
- When Big Data are a relevant topic, decided on the focus for one or more Big Data topic, e.g.
    - Tools to improve the knowledge of real time energy use in companies and organisations; e.g. Changing energy management systems
    - Use of big data for improved evaluation, monitoring and verification of EE programs
    - Big data as a tool to improve the customer relationship of the energy providing company/utility
    - Big data as a tool for network operators for smarter operation of the grid
    - Others?
- Decide whether the selected topic(s) should be handled as
    - A new subtask within an existing Task
    - A new Task

DSM University – Document G

- Approve the Task Status Update Report

Task 17 - Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages – Phase 3 – Document H

- Approve the Task Status Update Report

Task 24 – Closing the Loop – Behaviour Change in DSM: From Theory to Practice – Phase 1 – Document I • Approve the Final Phase I Task Status Update Report.
Task 16 – Phase 3 – Innovative Energy Services – Energy Efficiency and Demand Response Services – Document J • Approve the Task Status Update Report
Task 25 – Business Models for a more effective market uptake of EE energy services – Document K • Approve the Task Status Update Report
Programme Visibility – Document L • Approve the Status Update Report • Approve new website (to be shown at the Executive Committee meeting) • Approve layout for the newsletter and report covers (to be shown at the Executive Committee meeting)
Task Zero – Document M • The Executive Committee members are invited to take a formal approval of Task ZERO to deal with the common obligations and raise the yearly fee for participation to 11,000 USD.
Financial Report 2014 – Document N • Approve the financial report 2014

Document A

AGENDA

IEA Demand-Side Management Programme Forty Fifth Executive Committee Meeting
26 – 27 March, 2015, Cape Town, South Africa

WEDNESDAY 25 March 2015

18:00 – 20:00	**Operating Agents Meeting** (lobby Best Western Cape Suites Hotel) **Visibility Committee Meeting** (lobby Best Western Cape Suites Hotel)	
THURSDAY 26 March 2015	**Venue:** Cape Peninsula University of Technology (CPUT)	
09:00 – 10:00	**1. GENERAL BUSINESS/WELCOME**	
	1a. Welcome – *Rob Kool*	
	1b. **ExCo approval** of the Agenda	DOC A
	1c. **ExCo approval** of the Forty Fourth ExCo meeting Minutes – Graz, Austria	Distributed earlier
	1d. Status of the Implementing Agreement	
	1e. IEA Relations	
	- Secretariat news	DOC B
	- Contacts with possible sponsors/new participants *Rob Kool*	
	- IA relations, BCG and ECG, *Rob Kool*	
	- Report from the Project Preparatory Committee (PPC)	DOC C
	- *Rob Kool*	
	- Operating Agents meeting report – *Rob Kool*	
10:00 – 10:30	Coffee break	
	2. NEW WORK	
10:30 – 11:00	2a. Concept paper on Marketing Winners – Selling Super Efficiency with Sport – *Verney Ryan, Element Consulting, New Zealand*	DOC D
11:00 – 11:30	2b. Proposed Joint Annex on Multiple Benefits of Energy – Efficiency, *Hans Nilsson*	DOC E
11.30 – 12:00	2c. Big Data and Energy Efficiency – *Harry Vreuls, Netherlands Enterprise Agency*	DOC F
12:00 – 12:30	2c. Development of the DSM University - *Hans Nilsson*	DOC G
12.30 – 14:00	**Lunch**	
	3. CURRENT TASKS – LOAD SHAPE CLUSTER	
14:00 – 14:30	3a. Task 17 – Integration of DSM with other Distributed Energy Resources – Phase 3 *Réne Kamphuis*	DOC H

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)

14:30 – 15.00	3b. Task 24 Closing the Loop – Behaviour Change in DSM: From theory to practice. Task Status Report *Dr. Sea Rotmann, SEA - Sustainable Energy Advice, New Zealand* *Dr. Ruth Mourik, DuneWorks, The Netherlands*	DOC I
15:30 – 16:00	**4. CURRENT TASKS – LOAD LEVEL CLUSTER**	
	4a. Task 16 – Phase 3 – Energy Efficiency and Demand Response Services – Task Status Report, *Jan W. Bleyl, EnergeticSolutions, Austria*	DOC J
16.00 – 16:30	Coffee break	
16:30 – 17:00	4b. Task 25 Business models for a more effective market uptake of DSM energy services. Task Status Report – *Ruth Mourik, DuneWorks, the Netherlands*	DOC K
17:00	Adjourn	
19:00	Hosted Dinner	

FRIDAY 27 March 2015

09:00 – 12.00	**5. PROGRAMME VISIBILITY**	
	5a. Programme Visibility Report, *Sea Rotmann*	DOC L
	5b. New website, *Sea Rotmann* Website statistics – see Attachment section	DOC M
	5c. Communications Plan, *Sea Rotmann*	Distributed earlier
10:30 – 11:00	Coffee break	

11:00 – 12:00	**6. ADMINISTRATIVE MATTERS**	
	6a. Task Zero	DOC N
	6b. Financial Report 2014	Part 2
	Accountax Status Report	Part 2
	Status of Common Fund payments	Part 2
	6c. **ExCo approval** of Forty Sixth ExCo meeting in Beijing, October 2015	
	6d. Decision on plans for the Forty Seventh ExCo meeting in Stockholm, Sweden, April 2016	
	6e. Plans for the Forty Eighth ExCo meeting October 2016	
12:00 – 13:30	**Lunch**	
13:30 – 15:00	**7. OTHER ISSUES**	
	Adjourn	

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

Table 1. Task Work Plan Resource needs: Task or cost sharing
Table 2. Dissemination, Task Information Plan

CONTENTS OF PROPOSALS FOR NEW WORK
The document that will propose the new work to the Executive Committee 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, Subtask 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 Subtask

Document B

REPORT FROM THE IEA SECRETARIAT

Information on recent developments within the IEA Secretariat

February 2015

Secretariat and IEA business

- **Executive Director of the IEA**, Fatih Birol, was elected in February to succeed Maria van der Hoeven at the end of August 2015.

- **Request for Extension**
  The CERT is currently considering revisions to the request for extension process. The proposal combines the Criteria, the End-of-Term Report, and Strategic Plan into one questionnaire which may be filled in online. A final report is expected in June 2015. Should the CERT approve the proposal, they would be applicable to all ETIs beginning January 2016 and required as of January 2017.

- **Raising awareness**
  2015 marks the 40th anniversary of the mechanism underlying the IEA Energy Technology Initiatives (formally organised through an Implementing Agreement). A number of activities are planned during the year to celebrate this milestone, culminating in presentations to the IEA Ministerial. For more information see www.iea.org/techinitiatives/40years.

- The new interactive Forum is now available for use (it replaces the former IMPAG website for participants).
  http://www.iea.org/techinitiatives/forum/
  username IAForum
  password Network 2014

Energy Efficiency in Emerging Economies

The E4 programme has ongoing activities in South Africa, Mexico, India and Ukraine with new activities scheduled to commence soon in China, Indonesia and Thailand. Support requested from the emerging economy governments is very much in line with the IEA's analytical capabilities and is drawing on resources from the Energy Data Centre, the Energy Technology Policy Directorate and the World Energy Outlook Team as well as the Energy Efficiency Unit. Consistent themes are emerging on energy data collection and analysis to; track progress of energy efficiency measures at a macro and sectoral level; assess the impacts of individual energy efficiency policy measures; and project the potential for energy efficiency improvements.

There is also a high degree of alignment with the work of the Energy Efficiency Unit with the Energy Efficiency Policy Recommendations (EEPRs) playing an important role and the multiple benefits work attracting a high level of interest.

In terms of the EEPRs, in 2013, the Secretariat embarked on a project to promote regional energy efficiency policy recommendations in the developing world. A brochure highlighting the

recommendations developed by regional experts at the first REEPRs Roundtable (for the Arab-SEMED region) was published and distributed in May 2014. The brochure is available in English, Arabic and French.

The second REEPRs Roundtable was held for the Southeast Asian region in Indonesia, in December 2013. Recommendations developed during this roundtable were formally released by the Executive Director of the IEA at the ASEAN Ministers Meeting on Energy on 23rd September 2014. A brochure was published in October 2014, and the recommendations have been disseminated at multiple regional events (e.g. Singapore International Energy Week 2014). These recommendations are going to form the basis for some training in Indonesia in March 2015.

The third REEPRs Roundtable for Latin America and the Caribbean was held in Lima, Peru, in October 2014. The initial findings from this Roundtable were further discussed in Santiago, Chile, during a regional training program entitled 'Sustainable Energy Training for Latin America' in November 2014. The resulting brochure will be published in March 2015, in both Spanish and English.

A small Reference Group has been established for the E4 Programme comprising Denmark, the European Commission, Japan and the United States. The Group which serves a discussion forum to inform E4 Programme activities has met twice and aims to meet three times a year.

Contact: Melanie.SLADE@iea.org

Energy Efficiency Market Report 2015

Development of the Energy Efficiency Market Report 2015 is in full-swing. The EEMR 2015 team consisting of Tyler Bryant, Sam Thomas, Lorcan Lyons and Brian Dean is working on developing content for Part 1 of the report. This year the focus will be on providing estimates of savings in energy expenditure from energy efficiency and on the impact of energy efficiency to energy security and trade. Further, the report will take a close look at the buildings efficiency market and the impact of utilities on efficiency investment. Finally, Part 1 will build on the decompositions of energy use and introduce an energy efficiency market profile for the countries evaluated. This approach will seek to outline drivers for efficiency across countries using policies, energy prices and previous performance on efficiency as a guide.

Part 2 aims to include 8 to 11 distinct evaluations of the energy efficiency markets in select jurisdictions. This year, we will look at EU countries, countries in the MENA and Latin American regions, and look at the efficiency frameworks in a number of sub-national jurisdictions including one U.S. state and 2-3 cities.

The Market Report is hosting its first Workshop March 16, 2015. The workshop will be evaluating two inter-related themes in energy efficiency markets: a) the fast developing energy efficiency market for buildings and b) the changing landscape for energy utilities and the impacts on energy efficiency programme spending and investments.

Contact: Tyler.Bryant@iea.org

Energy Technology Perspectives

ETP 2015 will launch May 4th, the focus of this year's report is on *Innovation* in the energy sector and how innovation is necessary to achieve ambitious GHG emissions reductions.

Contact: Jean-Francois.Gagne@iea.org

Energy Efficiency Training Week

The IEA is hosting the first dedicated Energy Efficiency in Emerging Economies Training Week June 8-12 2015. The training will cover the latest knowledge from a range of international experts with insights and in-depth discussions on a wide range of energy efficiency issues. Participants will learn about good-practice policies and how to adapt them to their country context. The event primarily targets officials from emerging economies.

Energy efficiency training week is scheduled for offers four in-depth courses, each focusing on a distinctive energy efficiency sector – buildings; appliances, lighting & equipment; industry; and transport. Cross-sectoral courses on energy efficiency governance, finance, indicators and evaluating the multiple benefits of energy efficiency will be offered to all participants.

Contact: Sara.Pasquier@iea.org

Energy efficiency and behaviour

The IEA is embarking on a two-year work-stream to share experience (from member countries and key non-member countries) with designing, implementing and evaluating innovative, people-centred energy efficiency policies. Initially the work will focus on the buildings sector (commercial, public and residential), before moving to other sectors, including transport and industry, over the course of the work-stream. The first workshop will be held 12 March 2015. The findings from this workshop and future workshops on industry and transport will feed into a larger report on accounting for behaviour in the design of energy efficiency interventions for publication in 2016.

The objectives of this work-stream are threefold:

- Identify the range of cost-effective measures available to policymakers to deliver better energy efficiency outcomes, by taking into account behavioural and social factors.
- Exchange lessons learned in terms of programme design, implementation and evaluation.
- Explore replicability and scalability across different implementing organisations, geographical and sector boundaries, and social contexts.

The work steam will investigate the extent to which taking account of behaviour and social aspects can impact the take-up of energy efficiency measures, their energy-saving performance and the persistence of those energy savings. It will also explore the impact of changing consumer preferences on the design of energy efficiency policy.

Contact: Sam.Thomas@iea.org

SME Policy Pathway

The IEA is developing a Policy Pathway publication with the possibility for launch date in 3Q 2015.

This Policy Pathway draws on the experience of practitioners and organisations involved in developing energy efficiency programmes for industrial SMEs. The guidance provided is also relevant to SMEs in the commercial buildings sector. The Policy Pathway proposes a structured set of considerations and steps that policy makers, programme designers and other practitioners can use to develop and review SME energy efficiency policies and programmes. These experiences are illustrated in more than 20 short case studies. These are complemented by three in-depth case studies that provide insights into the practical considerations that inform the development of SME programmes.

Contact: Sam.Thomas@iea.org

Energy Efficiency Policies and Measures Database (PAMs)

The IEA has now completed the two-year database enhancement project. This upgrade of the databases allowed the IEA to deepen the data held on IEA member countries, expand representation of non-member countries, streamline the delegate review procedure to enhance data collection (thus removing duplication both within member countries and at the IEA) and improve the functionality and analytical content of the databases. A key achievement in 2014 was the launch of a powerful new timeline visualization tool which builds in IEA statistical energy data in real time. The tool enhances the usability and analytical view of PAMs.

The Secretariat implemented a PAMs Communications Strategy, which has led to improved visibility at the IEA Ministerial, CERT and Fossil Fuels Working Party (FFWP). It has also attracted interest from other IEA teams, in particular the Country Studies Division, which will ensure PAMs feeds in to IEA In-Depth Energy Reviews (and vice a versa). Another major achievement was the inclusion of PAMS collaboration as an item on every IEA Joint Work Programme signed with IEA Partner countries.

The Secretariat's current priorities for PAMS over the next 12 months are consolidation and dissemination. The team will consolidate the significant progress made over the past two years by testing and refining existing features and seeking and responding to user feedback. Dissemination will be scaled up to put into effect the options explored in the 2014 revision of the PAMS Communication Strategy For example, we are investigating updates to the search categories and streamlining of the Content Management System, the possibility of further engagement with non-IEA countries, short videos to explain how to use PAMS, an online user survey, and refinements to the visualisation aspect. To pursue these (and other more ambitious enhancements, which could provide further context to the PAMS data,) new resources may need to be identified.

Contact: Lorcan.Lyons@iea.org

IEA Energy Efficiency and Buildings:

To be added as addendum

Contact: Brian Dean

G20 Energy Security Working Group - Networked Products Workstream

The Workstream aims to:

- Co-ordinate governments, experts & industry to encourage innovative responses to energy consumed by network devices
- Expand relevant research & share information
- Accelerate standards for enabling devices to power down & use less energy in standby mode
- Develop policy frameworks to reduce energy consumption in network standby mode
- Develop a platform for international cooperation e.g. via IEA-4E & SEAD
- Consider goals for reducing global standby mode energy of network devices

Contact: Sam.Thomas@iea.org

New tentative work – Energy efficiency indicators in emerging countries

This work stream would focus largely on the emerging and developing economy context and consequent implications for the choice of energy efficiency indicators.

In particular, we would wish you to focus on the drive to improve standards of living in such countries, the increased energy consumption that that will necessarily entail, and the role therefore of energy efficiency in doing a lot more with more (as opposed to more with less).

Contact: Sam.Thomas@iea.org

Multiple Benefits of Energy Efficiency

Following the publication of the Multiple Benefits report in September 2014, the IEA is continuing research and collaboration on this theme. We are organising a workshop on evaluating the multiple benefits of energy efficiency, on April 20, jointly with the International Energy Policy Evaluation Conference. The focus of the workshop will be on the buildings sector. It will involve the interaction between policy makers and evaluation specialists, with invites having been sent out to both groups in roughly equal measure. We are looking to bring together international experience of evaluating the multiple, non-energy, benefits associated with energy efficiency interventions, as well as to make progress in building a consensus on what further work is needed in this area.

Contact: Sam.Thomas@iea.org

- **New membership:**

Should you require guidance in identifying appropriate organisations or individuals in Partner countries that may be interested in membership please contact carrie.pottinger@iea.org.

Document C

PPC REPORT

October 2014 – March 2015

The Implementing Agreement welcomed Tyler Bryant as the new Desk Officer. He has been active in a number of phone calls and information exchanges.

The PPC had two "regular" teleconferences since the last Executive Committee meeting. After finalising the new strategy, these meetings have discussed business as usual.
This "business as usual" does not have much material to report on, as it is in line with the last Executive Committee meeting. During the teleconferences a lot of work has been done, including:

- Next Executive Committee meetings in South Africa and China have been organised. The meeting in Beijing, China will be organised in collaboration with the Copper Alliance Asia.
- The new website and implementation of the logo took a lot of attention. Here we have to thank the Visibility Chair Sea Rotmann, Anne Bengtson and Hans Nilsson and his incredible archive for a smooth transition.
- More extensive information on these communication activities can be found in the reports of DSMU and the Visibility Committee.

In line with the last Executive Committee decisions, we have explored the possibilities of a new Task. This resulted in a workshop in Stockholm with IA IETS and a number of experts. A one pager will be presented and discussed at the next ExCo meeting.

Harry Vreuls is exploring the option of a Task on Big Data, but does not have enough material yet to present a one pager at the next meeting.

We have discussed possible participation with several countries and parties. So far this has led to the participation of South Africa (they now intend to sign during the Executive Committee meeting). Countries and organisations that have been contacted are: Nova Scotia, Denmark, Germany and IBM.

Anne has talked to Sarah Mitchell, Efficiency Nova Scotia, on 10th February. She will attend the meeting in Cape Town. They want to join the IA as Sponsors and are prepared to suggest an Expert for Task 24.

Collaboration IEA:

1. EEWP: after CERT we will have a clearer view on collaboration options, so far it's a topic on the agenda of the IEA Secretariat.
2. It was agreed that EGRD material will be available on the new DSM website.
3. We didn't attend the BCG, but provided material.

Written by Verney Ryan : Element Consulting Ltd : Ph +64 (0) 21 837 639 : Email: verneyr@gmail.com

Document D

INTRODUCTORY CONCEPT PAPER
MARKETING WINNERS – SELLING SUPER EFFICIENCY WITH SPORT

Background and Motivation

"I hate telling people that I work in demand side management and energy efficiency… it's just not sexy!" (anonymous energy labelling specialist, 2012)

The marketing challenge for the branding of 'energy efficiency' is not a question of spreading knowledge or education but of **establishing image.** Energy efficiency is not currently dominant in purchasing decisions for competing consumer products because few consumers have ever been professionally exposed to marketing and branding of energy efficiency as a **dynamic and positive consumer choice**. As a consequence, the value attached to the brand's image, which has the ability to reflect and enhance the purchaser's own desired image as being energy-conscious, is not perceived as a selling point. These were some of the findings from the multi-national energy efficiency study conducted by the International Energy Agency's Demand Side Management Task VII on Market Transformation.

Marketing data arising from Task VII encouraged participants and industry to explore new promotional ideas for energy efficiency and to seek solutions that would increase consumers' desire for energy efficient products and services (the pull factor). It was suggested that the approach should focus more strongly on people as brand aware, self-conscious consumers. Thereby lifting promotion of energy efficiency beyond the usual 'save money and the planet' arguments and seeking to identify energy efficiency with the lifestyles, values and attitudes that currently drive consumer purchasing.

One aspect that was explored in Task VII was the ability to link the efficiency of a sportsperson or team on the field with the idea that, in the private life of a consumer, their product choice represents a similar approach to being 'effective' and 'saving their energy' and being a winner. The idea being that an effective sportsperson does not expend energy at 100% during the duration of a game – but rather, uses their energy in an efficient way, in the right place, at the right time, to achieve the 'win'. Nowhere is this more evident than whilst watching the 'mighty All Blacks' rugby team play.

An exciting opportunity exists through links to Task VII's previous Operating Agent (Verney Ryan) to secure the rights to use the All Blacks in a global consumer campaign that directly promotes energy efficiency and drives uptake of the **world's most efficient consumer products**. It has the potential to simultaneously transform the image and attitude towards energy efficiency. For want of a better description, to finally make energy efficiency **desired, desirable and 'sexy'**.

W

Zealand's Captain Richie McCaw looks back at his teammates through the rain during the Autumn international rugby union Test match between England and New Zealand at Twickenham Stadium, southwest of London on Nov 8, 2014. -- PHOTO: AFP – Sourced from www.straitstimes.com

Objectives

The primary objective of this new task is to utilise the concept of sport and super-efficiency in a coordinated global campaign that can be localised within each country - **appropriate and complimentary to each nation's existing energy labelling schemes**. The research hypothesis being tested with this work is that "a coordinated global campaign linking sports achievements with super efficiency will raise awareness of specific country

energy efficiency branding and labelling and drive increased demand for the most efficient appliances, products and services".

Evidence from Industry wide interviews conducted as part of Task VII indicated that companies who made efficient appliances, products and services shared a common desire to be involved in the promotion of more efficient products – particularly if the **market demand could be stimulated through a coordinated global campaign** (see IEA DSM MT7 Report: Market Research Industry Consultation, October 2004).

Most companies interviewed indicated that the promotion of energy efficiency should be pursued with more **imagination, innovation and creativity** than it has been in the past. There was general agreement in the findings of the Task VII Market Research that marketing communications should not simply focus on arguments relating to cost and environment saving, but should also broaden the appeal to **consumers' aspirations and values systems**.

If the desire and market pull for efficient products can be stimulated sufficiently then manufacturers and retailers will respond by improving their point of sale information and will start to highlight efficiency as part of their marketing portfolio – this in turn will stimulate the production of more market leading higher efficiency products.

Approach

The new Task (or extension of Task VII) under the IEA DSM implementing agreement would coordinate a three year global campaign utilising the All Blacks Rugby team to raise awareness and develop the brand of super efficiency linked to one of the world's highest achieving sporting teams. This global campaign would be localised to each individual country – and used to promote the specific brand, label or approach specific to that market (e.g. Energy Star in the United States, Top Runner in Japan or Germany, EU A+++ energy label in Denmark or Sweden)

Coordination, licensing, contracts and funding would be provided by the operating agent and delivered through this IEA DSM Task. Each participating country would share yearly costs related to the licensing, marketing and advertising development (estimated at between €110,000 - €210,000 per country depending on the number of participants). The operating agent will provide the main point of contact for the work and act as an intermediary between participating country organisations and New Zealand Rugby Union (NZRU). This will include:

- Assisting with approaches to branding and labelling for each country
- Managing international cooperation between global partners
- Assisting with the main campaign strategy and concepts
- Organising and facilitating the rights and licensing to the All Blacks, contracts and invoicing

Co-funding could also be explored from industry partners and companies who assist in the development of the efficient sport concept and are linked through the use of the energy label used on their products e.g. Philips new line of efficient A+++ fridge freezers, Sony's best in class energy star LED TV. The idea is to use the **'best in class' All Blacks** (a world beating champion team) in association with the most efficient **'best in class' consumer electronics products**.

The core of the campaign could be focussed on a an advertisement showing the grit and determination of the All Blacks in a gruelling game of rugby where lead players cleverly watch the play and conserve their energy until just the right moment, just the right time – where it is used wisely to achieve the 'win'. This would be supported by additional marketing collateral including website campaigns, print media and point of sale information.

Initial Project Scope

The following provides a draft project scope for the development of the concept:

1. **Phase one:** Coordinating approach, seeking funding, overall feasibility (currently underway)
2. **Phase two:** Development of core concept and marketing/branding plan for sports efficiency concept (concept and brand image would be associated with country specific efficiency labelling e.g. 'Energy Star' peak efficiency products etc. This will require input at the IEA and country expert level and with assistance from the consumer products industry.

3. **Phase three:** Planning and executing the marketing approach with product branding tie in (suggest a global advertisement based on video for TV, Film, online audiences that associates the efficient brand with the efficient winners on the field)
4. **Phase four:** Research and evaluation of initial market approach and further evolution of concept (market research and evaluation to test effectiveness and seek feedback from sponsors/stakeholders). This feedback loop helps to evolve the concept over the planned three-year period. Government agencies may be best placed to undertake this research as part of their existing evaluation of energy efficiency approaches – or this could be developed as a stand-alone piece of research coordinated at an international level through participating countries.
5. **Phase five:** On-going marketing and brand development – evolving the plan to move forward as an on-going campaign with revised and refreshed marketing approaches delivered annually.

Benefits, Results, Evaluation

The results of implementing a successful global campaign at this level will include:

- Heightened consumer awareness of energy efficiency and a positive value driven association with 'winning' through efficiency
- Increased demand and desire for the most efficient products (with bragging rights for consumers)
- Increased consumer awareness of government support including the branding, logos and collateral in each country (e.g. heightened awareness and understanding of energy labels, their value and purpose)
- Efficiency labelling schemes currently ***imposed*** on manufacturers will be more warmly ***welcomed*** by industry with qualifying products (because this campaign supports and drives sales of those products)
- A high impact campaign that drives consumer pull will be met by increased competition amongst manufacturers to achieve 'super-efficient' status (hence driving industry research and development in better efficiency)
- A coordinated campaign shares costs between each participating country – purchasing the rights to use a leading global sports team at a fraction of the shared cost
- Global coverage using similar marketing collateral increases the depth and impact of the campaign (seen around the world)
- The work directly answers and addresses The IEA's four main areas of focus – namely energy security, economic development, environmental awareness, and engagement worldwide.

Why the All Blacks?

The All Blacks are a globally revered team with a strong and symbolic identity, holding the title of the **best international sports team in the world**. They are a natural fit for this international campaign because of their outstanding record as champions, as well as their wide recognition and appeal across a variety of sports and cultures.

The 2015 Rugby World Cup will be the biggest sporting event on the planet, watched by a huge audience. The All Blacks are defending their successful previous 2011-cup win. Next year rugby will be introduced to the 2016 Olympics for the first time, generating a surge of interest in the sport.

The link to using energy wisely is evident from the fact that the **All Blacks are consistently the #1 Rugby team in the world**, with a **winning ratio over 76%.**

(photo source: http://rugby-wiki.com/)

Expert Input

Experts from each participating country will be utilised to coordinate the approach to labelling and branding that best meets the needs of that market in that specific geographic area. The level of expert input is expected to be less than 15 days per year per participating country, but this will be further defined during the Task Definition phase. In addition these experts will be utilised to research and evaluate the effectiveness of the campaigns. The project may also need marketing experts who can help plan the campaign approach in each country and assist

with booking appropriate media exposure (depending on each country's market and subject to a separate media outreach budget – e.g. TV airtime, access to web and print media).

Operating Agent

Verney Ryan was Operating Agent for the IEA DSM Task VII focussing on market transformation. This work concluded in 2006 coinciding with Verney's return to New Zealand. The work of Task VII was supported by government agencies from 7 countries including Denmark, Finland, Netherlands, Norway, Sweden, Korea and the United Kingdom

The concept outlined above has been developed by Verney Ryan as an extension to the initial market research and collaboration delivered through the IEA DSM network. The advantage of approaching this project through the IEA DSM network is the ability to coordinate the global approach and funding from several interested member countries. The IEA is also a large well-respected inter-governmental agency and this may also assist in drawing industry (product manufacturers) into a supportive and productive partnership.

Next Steps

The proposed Operating Agent (Verney Ryan) has been developing the core concept in detailed discussions with the New Zealand Rugby Union who manages the rights to use the All Blacks at a global level. At this stage the project team would like an indication of interest from participating countries to move this forward to full Task Definition phase. This will allow the development of a full budgeted proposal in support of a three-year global campaign.

Further task development can occur over the next two to five months with the proposed operating being available to present this at the next ExCo Meeting (China) in order to officially start the Task.

For More information please contact Verney Ryan, Element Consulting Ltd
mobile: +64 (0) 21 837 639 : email: verneyr@gmail.com

Industrial Energy-Related Technologies and Systems
An Implementing Agreement established under the auspices of the International Energy Agency

Document E

PROPOSAL JOINT ANNEX… MULTIPLE BENEFITS OF ENERGY EFFICIENCY

Prepared by Catherine Cooremans Eco'Diagnostic, Geneva

This is a preliminary document that will be further clarified and completed at the Stockholm meeting on 13 March 2015

2015-02-23

1. Background (motivation)

In commercial and administrative spaces, and in manufacturing, energy cost is usually a small portion of the total production cost and, therefore, it receives relatively little attention. Even when energy cost is high, core business considerations come first.

Replacing old equipment by a new more energy-efficient one, translates into energy benefits, i.e. the energy savings induced by the change, translated into monetary terms. But new equipment very often also induces non-energy benefits. Non-energy benefits (NEBs) include all benefits entailed by new equipment which are not an energy benefit. Examples often observed of NEBs include maintenance cost reduction, increase in workplace comfort or safety (for instance when an old oven is replaced by a new one better insulated), increase in industrial productivity (thanks to lower production time or a reduction of the rejection rate), product quality improvement. A reduction in GHG emissions is another frequently observed NEB of an energy-efficiency project. Similarly to energy benefits, NEBs translate into financial benefits for the investor.

According to the International Energy Agency, if current trends continue in the years to come, two thirds of the economic potential to improve energy-efficiency will remain untapped until 2035, including 55% of the energy efficiency opportunities in the industrial sector (Benoît et al., 2014). In 2014, the IEA, in an effort to activate this huge untapped potential of energy-efficiency, issued a report on the "multiple benefits of Energy Efficiency"[1] (IEA, 2014). As emphasized in the report, "identifying the multiple benefits that may be linked to energy-efficiency measures in industry could enhance the business case for action" (IEA, 2014:134).

Figure 1: Multiple Benefits of Energy Efficiency. See also http://www.iea.org/Textbase/npsum/MultipleBenefits2014SUM.pdf

NEBs have raised the interest of some researchers in the past fifteen years (Cooremans, 2011; Finman and Laitner, 2001; Lilly and Pearson,1999; Lung et al., 2005; Mills et al., 2008; Pye & McKane, 2000; Russell, 2015, Sauter and Volkery, 2013, Worrel, 2003). In its 2014 report, the IEA offers a literature review of the main research findings regarding NEBs' financial contribution: "Work to date indicates the value of these additional benefits can be in the range of 40% to 50% of the value of the actual energy demand reduction per measure (Lilly and Pearson, 1999; Pearson and Skumatz, 2002)" (IEA, 2014:136). "Based on energy cost savings alone, project paybacks in aggregate were 4.2 years. With additional benefits included, the aggregate payback fell by

[1] To gather research around a common and non-"negatively-defined" concept, the IEA report suggests using "multiple" instead of "non-energy" to describe the numerous benefits of energy-efficiency.

more than half to 1.9 years. This decrease in pay-back period from 4.2 to 1.9 years also emerged in other studies when additional benefits were included (Finman and Laitner, 2002)" (IEA, 2014:138).

The IEA report divides the multiple benefits of energy efficiency into five categories:
1. macroeconomic impacts; 2. public budget impacts; 3. health and well-being impacts; 4. industrial sector impacts; 5. energy-delivery impacts. This categorization, as usually in the NEBs literature (to the exception of Russell, 2015), does not distinguish between public and private benefits (or macro and micro benefits according to economics theory terminology). Macroeconomic and public budget are clearly public benefits; health and well-being and energy-delivery impacts can be public or private, although the financial benefits do not fall into the same cash-boxes. Industrial sector impacts are more clearly private benefits, although they can translate into nation-wide competitiveness increase and thus into GDP increase and into additional tax revenues.

Research has defined NEBs categories at company-level based on which areas they impact. As described by Nehler et al. (2014), most authors in the field (Finman and Laitner, 2201; Hall and Roth, 2003; Laitner et al., 2001; Lilly and Pearson, 1999; Lung et al., 2005; Pye and McKane, 2000; Worrell et al.; 2003) agree on the following categorization of NEBs: Production, Operation and maintenance (O&M), Working environment, Waste, Emissions and Other. Kats et al. (2003) provide a good description of NEBs in tertiary ("green") buildings. They classify NEBs along similar categories as those of research focusing on industry: productivity and health, water conservation, waste, emissions. Kats et al. (2003) also mention an interesting category of "insurance benefits" of green buildings (which they classify into four categories: work health and safety, property loss prevention, liability loss prevention and natural disasters preparedness and recovery; Kats et al, 2003:81). Regarding company-level impacts from industrial energy efficiency projects, IEA uses the same categorization as those developed by research, with two exceptions: it adds a "competitiveness" benefits category and brings together waste and emissions benefits in a broad "Environment" category (2014:134).

Identifying and assessing NEBs is not an easy matter. "Hundreds of different benefits for industry have already been identified in past studies and surveys of energy efficiency project implementation, making it challenging to produce a definitive list of the most important ones" (IEA, 2014:134). "Because so few studies have been undertaken in this area, methodologies for quantifying wider benefits from energy efficiency measures in industry are still at the inception stage" (IEA, 2014:137). NEBs vary in terms of the time horizon in which they occur, as well as in terms of their measurability (which has to be made in physical, monetary and strategic terms). In addition, NEBs are not constant in time (as equipment efficiency usually decreases with time), and all the costs and benefits associated with an investment in energy efficiency need to be compared to a counter-factual, which could range from "no investment" to "an alternative less energy efficiency investment". All this complicates NEBs assessment.

NEBs can be identified upstream (to inform energy-efficiency investment decisions) or downstream (after investment decision-making, in a retrospective analysis). It seems that most NEBs reported have been found incidentally, i.e. ex post after implementation of energy-savings measures. To reinforce the business case of energy efficiency and increase acceptance of energy-efficiency investments, a method is needed to identify and analyze NEBs upstream, i.e. *ex-ante* in early analyses of projects (energy audit analyses, technical, financial and strategic analyses), and to include them in investment calculations.

NEBs pose different types of challenges:

- Methodology:
  - a methodology is needed to categorize NEBs (existing categorization is still too vague) and to assess them along different perspectives (technical, human, financial, strategic);
  - this methodology must be capable to take into account NEBs time variations and measurability requirements.

- Data:
  - In order to inform practitioners and decision-makers, reliable data must be identified and collected (when possible) throughout industry worldwide;
  - data collected must be anonymized and organized in a global public data base.
- Communication:
  - a convincing way to communicate about NEBs towards businesses and policy-makers has to be developed.

The work made by the IEA secretariat must now be taken further in two respects in order to make NEBs operational:

- Deepening the knowledge about issues and actors concerned and do so in a way that takes into consideration different applications in different countries and different planning environments. This to make NEBs relevant for applications locally
- Actual quantification that also has to take into consideration the difficulties of multiple actors and the fact that benefits may not show on the balance sheet of the investor.

The DSM-Programme is well situated to take on the supervisory task "Multiple Benefits in Action" and to do so in co-operation with other relevant IEA Agreements.

2. Industrial Area

The proposed annex, at least in a first stage, will focus on impacts of energy-efficiency investments for businesses, i.e. on the NEBs at company-level, in industrial and tertiary sectors.

3. Objectives and Scope

Based on the context briefly described in the first section, the objectives of the proposed joint annex are the following:

- **Analytical tool**. The first main objective is to provide businesses' internal staff (energy managers, facility managers) as well as the external consultants advising them and public programmers, with an analytical tool to be used upstream to better identifying and assessing the NEBs.
  This analytical tool will apply to industrial facilities as well as to commercial/administrative buildings with any type of business model. Residential buildings could be taken into consideration as part of the value chain of real estate businesses.
  Energy, operational and strategic aspects of energy-efficiency projects must be bridged in an integrated analysis, in order to gather all relevant aspects of NEBs and to convince all actors involved in decision-making processes.
- **Data base**. The second main joint annex objective is to provide practitioners and policy-makers with a date base, which will contain data collected worldwide (at least in all IEA member countries).
- **Communication tool**. The third main joint annex objective is to provide businesses' internal staff, consultants advising them and public programmers with a communication tool, to be used to present NEBs in a common and convincing way to decision-makers.
- **Dissemination**. The forth main objective is to actively disseminate information to policy-makers on NEBs and on their contribution to activate the untapped potential of energy efficiency.

4. Means

In order to achieve the above-mentioned goals, it is suggested:

- to set up a "supervisory" task in collaboration with the IEA secretariat and outline a work plan that defines a) priorities to develop actions to fill in the blanks in the NEB structure, and b) the sharing of work within and among the IEA IAs.
- Outsourcing of subtasks to IAs making use of their particular knowledge of e.g. industries, municipalities, buildings etc.

In order to reach the objectives described, the following approaches and methods will be used along different tasks, building on previous IEA work, embodied in the 2014 report on the multiple benefits of energy efficiency:

4.1 Task 1 - Preparatory work

- Build-up of a network of experts (academy, industry, consultants, public programmers, policy-makers)
- Literature review of recent research in the field, based on the IEA reports and earlier R&D work in this area.
- Analysis of available assessment tools
- Analysis of available data
- Raising of interest and funding activities

4.2 Task 2 - Realisation phase

4.1.1 Elaboration of conceptual and analytical tools

- Categorization: build-up of a conceptual framework to categorize and identify NEBs in businesses. Principles for MEB and aspects of special importance for the industrial sector
- Assessment: build-up of a conceptual tool to assess NEBs in technical, human, strategic and financial-quantified terms, to be used by businesses' staff, external experts and consultants, and public-policy programmers. Approaches on how this knowledge can be included in the strategic planning in industry, need for additional competence in-house or through Consultants/R&D experts (and maybe at least as important as directly in industry, how to integrate this in the work of energy system R&D experts, expert Consultants, etc. Quantification.
- Communication: build-up of a framework to communicate NEBs in a common and convincing way to businesses' decision-makers (upper management, shareholders, financial institutions).
- Approaches on how to include MEB in the work of governmental and regional policy makers, industrial branch organisations, etc.

4.1.2 Data base

- Data analysis and collection. Quantification of possible MEB for industry through examples from existing projects (at least one in each participating country.)
- Data base conception
- Data base realization

4.3 Task 3: Dissemination and training phase

4.1.3 ***Dissemination***. Dissemination of information to policy-makers on NEBs and on their contribution to activate the untapped potential of energy efficiency. Develop an institutional setting for distributing the results.

4.1.4 ***Training***. train staff to use NEBs in practice.

4.4 Task 4: Organization of work

5. Results

6. Program Annex Plan

7. Dissemination

7.1 Dissemination

The results from different tasks will be disseminated by the respective Task Manager, assisted by the Annex Manager. Other possible future activities, when several tasks have been initiated, are:

- Setting up a web platform providing up-to-date application oriented information resource;
- Setting up a database of case studies and projects;
- Setting up a database of methods and tools;
- Sharing education and training material on web based education tools, or "cloud" and "pool" resources;
- Displaying and communicating the outcome at industrial fairs and conferences (posters, presentations, keynote lectures, etc.), technical journals and manager's publications.

These latter dissemination activities will be specified and suggested to the Executive Committee for approval at a later stage, together with a suggestion for separate financing of dissemination activities. They are not included in the obligations of the Annex Manager, as described in this proposal.

7.2 Intellectual property rights

Normally results in terms of task reports and outcomes from workshops shall be open. Parties participating in a task, however, may decide if a report shall be partly or wholly confidential.

8. Duration of Annex

This Annex shall enter into force on X date, 20XX, and shall remain in force for a period of 3 years until X date. 20XX.

9. Resources

The Annex Manager will be.

10. Obligations and Responsibilities of the Annex Manager

The Annex Manager shall:

- Develop a strategy plan on possible tasks, workshops, etc, to be managed within the annex,
- Follow the progress of the annex tasks,
- Together with the IETS chair and secretariat initiate new tasks within the annex,
- Report annually to the ExCo about status and progress in the annex,
- Suggest to the ExCo new tasks or other activities for decision by the ExCo.

11. Obligations and Responsibilities of the Participants

The work in this Annex will be carried out in tasks. Obligations and responsibilities within a task shall be defined in the task proposal. The obligations of the participating countries will be to participate in discussions and decisions on the annex tasks, which will be done in the ExCo meetings.

12. Participants

All IETS countries are invited to participate in the Annex. The participation is free of charge. Each country decides to participate or not in a task. The cost for this participation in terms of both cost-shared and task-shared activities is decided in each task in collaboration between the Task Manager and the participants.

13. Funding

13.1 Annex participants

The country participation in the Annex is for free (please see also Item 12).

13.2 Annex management

The costs for the Annex Manager will be borne by the country hosting the Annex Manager. The workload will be two person-weeks per year, plus two international travels yearly. Responsible for the funding of the Annex Manager will be the Swiss Federal Office of Energy (to be formally confirmed).

13.3 Tasks

Funding in tasks can be cost-shared or task-shared. The total funding and contributions from each participating party will be decided in each task. The Executive Committee takes the decision to start a task, based on a detailed description on funding, objectives, responsibilities and deliverables prepared by the Task Manager.

14. Annex management

Document F

CONCEPT PAPER: BIG DATA AND ENERGY EFFICIENCY, A RESEARCH AREA FOR THE IEA DSM AGREEMENT?

Introduction

During the EXCO meeting in October 2014 the EXCO delegates discussed topics for potential future work. One of the topics was Big Data. Based on Internet search, this paper provides an overview on what 'big data' is in general and why it could be an interesting area for research work for the IEA DSM Agreement. I also provide some topics that could be selected.

Big Data

In our modern society the number of available data is exploding. Companies like Google, Facebook and Apple are storing (and analysing) search action on the internet, activities in social media; shops, airline companies, credit card organisations and banks are storing the data from users of their loyalty programs, their cards and transactions; navigation systems use the driving information etc.

Big Data is a container concept and is determined by the so called 3 V:

- Volume: large number of data
- Varity: data related to very different topics
- Velocity: quick availably of data

Not only the amount of data is increasing, but also the production of these data is continues speeding up. These two developments make it possible that one can (re)-act earlier to changes.

Big Data is often the combination of data from different sources as well as the use of data for other purposes then those were these data were collected for.

One cause of concern in the Big Data community is uneasiness about sharing data. Privacy is one obvious obstacle.

Big Data and energy use and energy efficiency

Big Data is an enormous opportunity for making energy-efficiency savings. People do not seem to adopt efficient technologies that appear financially attractive. One of the commonly cited reasons is that information about how to save energy is hard or time consuming to collect, or that the efficient devices are hard to use. The use of improved metering information on processes as well as the combination with other (big) data in industrial companies, can generate information to be used by the management to improve energy efficiency. Companies may do it there self, but firms that employ Big Data can help better to overcome these challenges.

The introduction of smart meters can result in a large amount of data on the energy use of consumers, detailed over the time of use and (almost) real-time.

Smart and intelligent metering technology allows electricity customers to keep an eye on their current and previous energy consumption at all times. The pivotal role of consumers in energy management will be greatly facilitated by their ability to access their usage data. Such transparency helps end-users to better control their consumption, use energy more efficiently, protect the environment and potentially save money. Organisations can make huge energy efficiency gains, for instance through intelligent lighting and heating systems which only activate when facilities are in use.

Utilities are approaching the Big Data differently. E.g. EDF begins its plan to roll out 35 million smart meters across France and it will need to start incorporating that flood of data into its way of doing business. Options under research are to use data from the smart meter to better estimate the state of the grid, or use that data to better assess the material lifetime duration" of power lines, transformers and other distribution grid equipment. Or you can basically-- and this is the main important part - try to manage the energy consumption: to push the people, or to find the best condition, in which the consumer will consume less, or will consume on a different

timescale. This is an area where data will help and that will be an important part of managing grid assets in a world where new customer loads such as plug-in electric vehicles, as well as the increasing share of power being generated by customers themselves, are altering supply-demand balances.

Most of U.S. utilities data analytics focus to date has been on improving grid reliability and outage response, as well as lowering the cost of distribution operations.

The data 'explosion' in energy created a new potential for evaluation, measurement and verification of energy efficiency programmes. The data can be used to get quicker and cheaper answers on the impact of polices; more accurate savings estimates; and allow new kind of analysis. While at the moment most impact evaluations has to work with a number of assumptions on the energy use and related items, not only energy use data are more frequently and easier available but also the data to relate changes in energy use with other changes related to the programme or not.

Items for the EXCO

1. Decide whether Big Data is a topic the Agreement wants to deal with
2. When Big data are a relevant topic, decided on the focus for one or more Big Data topic, e.g.
    a. Tools to improve the knowledge of real time energy use in companies and organisations; e.g. Changing energy management systems
    b. Use of big data for improved evaluation, monitoring and verification of EE programs
    c. Big data as a tool to improve the customer relationship of the energy providing company/utility
    d. Big data as a tool for network operators for smarter operation of the grid
    e. Others?
3. Decide whether the selected topic(s) should be handled as
    a. A new subtask within an existing Task
    b. A new Task

References

"Big Data": New opportunities for EM&V of energy efficiency programs, Annika Todd, Erin Hulget, Lawrence Berkeley National Laboratory, Environmental Energy Technologies Division Behavior Analytics, Webinar, April 2014 http://www.emvwebinar.org/Meeting%20Materials/2014/Apr08_2014/ToddHult-Big_Dat_%20EMV.pdf

SXSW: Using Big Data to Shrink Energy Waste, Bryan Walsh @bryanrwalsh March 14, 2013

http://science.time.com/2013/03/14/sxsw-using-big-data-to-shrink-energy-waste/

Big data can drive big energy savings, Industrial Energy Management 6, January/February 2014, Chris Davis, LinkCycle www.controleng.com

Big Data: New Insights for the New Energy Consumer, Tyler Curtis and Anand Babu, Opower, webinar

Sustainability in the Age of Big Data, Special Report, Wharton, University of Pennsylvania, September 2014 http://environment.wharton.upenn.edu

Making Europe Fit for the Data Economy, DigitalEurope, Brussels, 9 December 2014

Making Big Data Work: Retail Energy, July 02, 2014 by Jon Brock, Stephan Lehrke, Tamim Saleh, and Nadjia Yousif
https://www.bcgperspectives.com/content/articles/energy_environment_technology_strategy_making_big_data_work_retail_energy/

Big Data and Utilities, Focus on analytic challenges, lessons Learnt and looking forward, Einar Hoffmann, Dong Energy, presentation European Utility Week, November 2014 Amsterdam

EDF's Big Data Vision for France, Jeff St. John, November 26, 2013

Smart Cities and Big Data: Challenges and Opportunities, Eric Woods Research Director Navigant

Document G

THE DSM UNIVERSITY

1. Summary

The DSM University develops largely according to plan and at a steady pace where we can deliver in a way that creates confidence from users and interested parties.

2. Objectives for the last six months

Webinars

10 webinars have been arrange up and until 2015-02-11. Approximately 1550 persons have registered for them to participate at least in one. Every webinar draws an audience of between 60 and 150 attendants and roughly 900 have attendants have been participating altogether, listening in to the presentations.

The webinars are recorded and both slides and supporting material is made available for registered users.

Webinars and their distribution over the different themes are shown in the appendix1 that also contains hyperlinks to the websites where the recorded material and further reading material can be retrieved.

"Partner" organisations are alerted about the webinars and asked to promote them in their own circles. Among them eceee (who distributed the calls to several thousands), IRENA, EBRD, IPEEC (G20) and Life Academy.

The web-platform

A beta version is available on http://www.leonardo-academy.org/course/view.php?id=227

Contents and sources

The material for the webinars has been structured to fit a more formal e-learning format where, webinars can serve as mini-courses. Each course will have standard 5 elements:

1. description
2. course materials - basically the narrated presentation
3. assessments (optional) - a test to measure learning impact. We've not done this so far in DSMU, but we do it quite often for other e-learning. If we want to go for certifcation, testing is needed.
4. feedback (optional) - an exit questionnaire on the course content
5. further reading materials (optional) - links & pdf's

3. Objectives for the next six months

Webinars

The webinars will be arranged and announced in a rolling 6 months plan. The following webinars are suggested

	THEME	TASK	DATE
1.	**The Logic of DSM**, in which motivations and overview is presented in particular to decision makers and people who wants to see how issues connect to each other	**NEBs**	**March 11**
		24	**May 13**
2.	**Governance (or DSM Management),** in which incentives, cost/benefit, planning, evaluation and regulation are dealt with but also institutional behavioural issues such as barriers and biases.	**6**	**?**
3.	**Energy use (Load Level),** technologies and measures to promote load level changes including strategic shifts of energy use to reduce carbon emissions.	**SMEs (Thollander)**	**June 10**
4.	**Flexibility – (Load shape),** technologies and applications in DR	**23**	**?**

systems and as regards customer benefits and participation		
5. Integration, putting energy efficiency, storage and RES together to systems	**17**	**?**
6. Business models, to deliver energy services	**25**	**?**
	Tech-learning (Wene)	**April 15**

Guest opportunities
a) Guest IAs: 4E, ISGAN
b) Policy issues: Club of Rome (Wijkman), Municipalities (Mayor NN), EE in buildings (Joyce)
c) Planning and integration: Peter Lund (Helsinki University)

The web-platform

Under development. In particular how contents can be edited and channelled for different target groups.

We need to develop links and repositories so there are entries to the material in a more distinct way than presently

Contents and sources

See APPENDIX below

4. Outreach

The next issue is to find "outlets" willing to engage in making use of the material and put it into use in their regular activities. The organisations mentioned above have all shown interest but could be prompted further in particular now when our substance mass has reached some maturity.

The webinars will be more actively promoted on Facebook and LinkedIn.

5. Ideas for New Work

See above but it is also time to make courses a bit more formal. Such would however best be made in co-operation with some to ensure that there is also at least a trial test of how suitable it would be.

6. Finance

	3m	6m	9m	12m	15m	18m	21m	24m	Budget (days)
Developing Products									
A. **Webinars.**	One every month (Scheduling by Chairs and secretary)								Moderation and communication by ECA (32)
B. **1. Task reports.** **2. WEB-casts**	Exists								
			1	1	1	1	1	1	Duty of OAs (6)
C. **Issue-reports.**		1	1	1	1	1	1	1	Editing (7)
D. **Theme-Summaries.**			2	2	2	2	2	2	Compilation (12)
E. **Blogs.**	1	1	1	1	1	1	1	1	Writer (8)
F. **Key messages.**			1	1	1	1	1	1	Writer (6)
G. **E-learning.**						x	x	x	-
H. **Expert advice.**						x	x	X	-
I. DSM-U Café.	1	1	1	1	1	1	1	1	Moderation (8)
Management	2	2	2	2	2	2	2	2	(16)
Reporting	2	2	2	2	2	2	2	2	(16)
SUM									**111 days at 1k$**

7. Activity Time Schedule

8. Matters for the ExCo

'Recommend the ExCo to approve the Task Status Update Report'.

9. Participating countries

NA

Appendix 1

DSM –U Webinars

DSMU-#	Title	Task	Operating Agent/Presenter	Theme					
				1- The Logic of DSM	*2 - Governance*	*3 - Energy efficiency - Load level*	*4 - Flexibility (load shape)*	*5 - Integration* [2]	*6 - Business models*
1	ESCo market development: A role for Facilitators to play	16	Jan Bleyl			X			
2	ISGAN Annex 2 Spotlight on Demand Management	ISGAN	Laura Marretta				X		
3	Using Demand-Side Management to Support Electricity Grids	15	David Crossley (RAP)				X		
4	Best Practices in Designing and Implementing Energy Efficiency Obligation Schemes	22	David Crossley (RAP)			X			
5	Impact evaluation of Energy Efficiency and DSM programmes	1/9	Harry Vreuls		X				
6	Managing Variability, Uncertainty and Flexibility in Power Grids with High Penetration of Renewables	-	Lawrence Jones, Alstom					X	
7	Customized, Systemic, Strategic – the way to succeed with energy efficiency in industry	-	Catherine Cooremans, Business School of Geneva			X			
8	Taking Stock – 40 years of Industrial Energy Audits	(eceee)	Peter Mallaburn, UCL			X			
9	Behavioural changes are necessary to get the full impact on energy efficiency. What works and what doesn't (part 1)	24	Ruth Mourik	*15-01-14*					
10	How to make the best technology even better, BAT becomes BAT+	3	Hans Nilsson						*15-02-11*
11	Capturing the Multiple Benefits of Energy Efficiency	New	Nina Campbell	*15-03-11*					
12	Technology Learning	-	Clas-Otto Wene						*15-04-15*
13	Behavioural changes are necessary to get the full impact on energy efficiency. What works and what doesn't (part 2)	24/2	Ruth Mourik	*15-05-13*					
14	Improving energy efficiency in SMEs – an interdisciplinary perspective	-	Patrik Thollander			*15-06-10*			
15	?	23?	Linda Hull?				*X*		
16	Incentivising DSM?	6	David Crossley?		*X*				
17	?	25	Ruth Mourik						*X*

[2] *(with RES and distributed generation)*

Appendix 2

Theme	Title	Input	Summary & Key Messages	Webinar	Webcast	Briefing note	Case studies	Blog article	Press article	Checklist (lessons learned)	E-learning course
1) The Logic of DSM	DSM as an energy resource	Task 13 Guidebook				x					
	Question & Answers										
2) Governance	7 key analytic elements	Task 1.9 Evaluation	x	x		x		x			
	Lessons Learned	Task 1.9 INDEEP reports (Appendix D)								x	
	Principles for integrated planning of DSM programs	Task 4 Guidebook chapter 2				x					
	Implementing DSM in Market Place	Task 5 (report 6)	x				x			x	
	Taxonomy of DSM Program Mechanisms	Task 6				x					
	White Certificates	Task 14	x								x
	CO2 reduction assessment	Task 18, report 2	x	x		x					
	Implementing EE Obligation Schemes	Task 22	x	x (June 2014)		x		x			
3) EE Load Level											
4) Flexibility (load shape)	7 Steps for Demand Side Bidding	Task 8 ("A Practicle Guide...") + Task 11 (Descriptions of EUMF, TOU and DSB)	x			x					
	Network Driven DSM	Task 15 (report 2 and 3)	x	x (07/05)				x			
	Advanced Metering	Task 15 (report 5)	x			x					
5) Integration	Communication Platform for EE and RES integration	Task 17	x			x		x			
	Communication technology	Task 2 = out of date									
6) Business Models	Cooperative Procurement	Task 3 management report				x					
	Communicating EE in 2003 and now	Task 7						x	x		
	Role of municipalities	Task 9 = out of date									
	ESCOs (general introduction)	Task 16 (First report) + Task 10 chapter 7	x	x		x					
	ESCOs financial calculation tool	Task 16 (First report)				x					
	ESCOs Best Practices	Task 16 (First report)								x	
	ESCOs: 3 models for refurbishment	Task 16 Second Report				x					
	Micro DSM: ESPs and Demand Aggregators	Task 19	x	x		x	x (1 or 2)				
Overall themes	Glossary	Start from Task 4 Guidebook									

Done
Soon
Second priority
Later

Appendix 3: Assessment of the IEA DSM material and its relevance and applicability for different purposes.

Task	Publications	Relevance
1 Subtask 8 - International Database on Demand-Side Management Technologies and Programmes	INDEEP Analysis Report 2004 http://www.ieadsm.org/Files/Tasks/Task%201%20Subtask%208%20-%20International%20Database%20on%20Demand-Side%20Management%20Technologies%20and%20Programmes/Archive/indeep%20analysis%202004.pdf	The INDEEP database started in 1994 as an international tool for: • inspiring the design and planning of new DSM and energy efficiency activities; • comparing the user's own programmes with similar types of programmes and evaluations; • providing access to contacts concerning different types of DSM, thus creating a network. By July 20041 the database contained 229 quality-controlled programmes from 14 countries. The material might still have some interest as inspiration for programmes.
1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes for Kyoto's GHG Targets	Evaluation guidebook (2005) Volume 1. http://www.ieadsm.org/Files/Tasks/Task%2019%20Subtask%209%20-%20Evaluation%20Guidebook%20on%20the%20impact%20of%20DSM%20and%20Energy%20Efficiency%20Programmes%20for%20Kyoto's%20GHG%20Targets/Reports/Volume1Total.pdf Volume 2 http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/Volume%202%20total.pdf	Volume (I) deals with evaluation theory and recommends how evaluations for five types of policy measures and programmes should be conducted. This new approach involves organising evaluations into seven key analytic elements. Volume II covers the evaluation tradition in the various countries and a number of selected case examples on evaluations, and also provides readers with additional background information concerning the choices made, which could help them find solutions for missing elements in the theory.
2 - Communications Technologies for Demand-Side Management	http://www.ieadsm.org/ViewTask.aspx?ID=17&Task=2&Sort=1	Very dependent on available technologies at the time of the work. Mostly irrelevant for new distribution systems today with smart grid technology at hand but might have some interest for refurbishment of older existing grids.
3 - Co-operative Procurement of Innovative Technologies for Demand-Side Management	Co-operative Procurement of Innovative Technologies for Demand-Side Management (2000) http://www.ieadsm.org/Files/Tasks/Task%203%20-%20Co-operative%20Procurement%20of%20Innovative%20Technologies%20for%20Demand-Side%20Management/General%20Information/FRpt.pdf Appendix to the above http://www.ieadsm.org/Files/Tasks/Task%203%20-%20Co-operative%20Procurement%20of%20Innovative%20Technologi	A procedure for collaborative procurement actions for introduction of innovative, more energy-efficient products has been developed and tested in a number of pilot projects. A clothes drier with the energy use cut by half (the first "Class A" drier), electric motors with losses reduced by 20- 40% and a "copier of the future" where the energy use has been reduced down to 25%! The model can easily be transferred to any party/actor who has an interest in boosting the market to deliver products with higher performance, Within the IEA DSM Implementing Agreement, Annex III has developed a Market

	es%20for%20Demand-Side%20Management/General%20Information/AppFRpt.pdf Co-operative Procurement - Market Acceptance for innovative Energy-Efficient Technologies http://www.ieadsm.org/Files/Tasks/Task%203%20-%20Co-operative%20Procurement%20of%20Innovative%20Technologies%20for%20Demand-Side%20Management/General%20Information/338_966_co_operative_procurementOCR_Optimized.pdf	Acceptance Process for co-operative procurement of innovative energy-efficient technologies. Experience from case studies shows very good results - a 50 per cent energy reduction in some instances - in a very short period of time. The process suggested could help countries and organizations to collaborate and to formulate functional requirements for energy use and other features that may stimulate development efforts among manufacturers and facilitate acceptance and dissemination of new solutions. The creation of buyer groups, consisting of future-oriented, leading buyers and users, will reduce the risks involved for manufacturers and open up opportunities for better interactive development
4 - Development of Improved Methods for Integrating Demand-Side Options into Resource Planning	Guidebook on Analytical Methods and Processes for Integrated Planning (1996) http://www.ieadsm.org/Files/Tasks/Task%204%20-%20Development%20of%20Improved%20Methods%20for%20Integrating%20Demand-Side%20Options%20into%20Resource%20Planning/Reports/Iv3_main.pdf	Planning and its elements (methods and tools) remain relatively stable over time. This publication deals not only with planning techniques but also the mirrors the market situation and makes a difference between Public-Policy based and Business based integrated planning There are large differences and variations between utility market situations regarding the role and function filled by the integrated planning effort, i.e., why and who carries out the integrated planning effort. Similarity in technical elements across utility-market situations — Many of the technical elements of integrated planning can be found across most utility-market situations.
	(Preliminary) Concepts For New Mechanisms for Promoting DSM and Energy Efficiency in New Electricity Business Environments. (1997) http://www.ieadsm.org/Files/Tasks/Task%204%20-%20Development%20of%20Improved%20Methods%20for%20Integrating%20Demand-Side%20Options%20into%20Resource%20Planning/Reports/Iv7_main.pdf	The restructuring of utility business and breaking up of vertical business structures changes the conditions for the actors but not the need for DSM. The mechanisms identified in this report are not DSM and energy efficiency programs. Rather they assist the implementation of such programs. Two types of mechanisms are investigated. First there are policy and regulatory measures which can be implemented by governments and regulators to promote DSM and energy efficiency. Second there are mechanisms which enable energy businesses to make a commercial return by implementing DSM and energy efficiency programs.
5- Investigation of Techniques for Implementation of Demand-Side Management Technology in the Market Place	REPORT 6 Techniques for Implementation of Demand Side Management Technology in the Marketplace (1998) http://www.ieadsm.org/Files/Tasks/Task%205%20-%20Investigation%20of%20Techniques%20for%20Implementation%20of%20Demand-Side%20Management%20Technology%20in%20the%20Market%20Place/Reports/Report6_annex5_english.pdf	Local utilities in some participating countries carried out, compared and evaluated some "micromarketing" activities which indicated that: • DSM actions should be carried out even in liberalised markets. • From a Utility's point of view, in a liberalised market DSM should be a part of the marketing activities to reach a more competitive position. • Customers attitudes facing energy use are similar in all countries.

	There are also 5 reports available covering different aspects and all material is available also in Spanish	• Marketing stimulus is useful probably due to the fact that the benefits from an efficient use of the electricity are not, for the moment, so obvious to the customers. • The Public Sector is always somehow connected with DSM programmes. • The DSM campaigns produce a cumulative long term effect on customers that implies a lower effort for future actions.
6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	A summary and overview of the work was published in the journal ***Energy Policy*** under the title." Public policy analysis of energy efficiency and load management in changing electricity businesses" (2003). http://fourfact.se/images/uploads/Energy_Policy_overview.pdf	
	Research Report No 1: Existing Mechanisms for Promoting DSM and Energy Efficiency in Selected Countries (1998). http://www.ieadsm.org/Files/Tasks/Task%206%20-%20Mechanisms%20for%20Promoting%20DSM%20and%20Energy%20Efficiency%20in%20Changing%20Electricity%20Businesses/Publications/resrpt1_fin.PDF	The work in Task VI comprised the identification and characterisation of existing mechanisms for promoting DSM and energy efficiency. Experts provided details of these mechanisms which were recorded in a database. Eventually, details of over 100 existing mechanisms were recorded in the database. To these were added 25 new mechanisms. The effectiveness of these mechanisms was assessed against a range of criteria. Four types of mechanisms were developed: • **Control Mechanisms** – these are used to direct energy businesses to change behavior. • **Funding Mechanisms** – these provide funding for other mechanisms. • **Support Mechanisms** – these provide support for behavioural changes by end-users and energy businesses. • **Market Mechanisms** – these enable the use of market forces to encourage behavioural changes by end-users and electricity businesses. The material is available in Spanish.
	Research Report No 2: Public Policy Implications of Mechanisms for Promoting Energy Efficiency and Load Management in Changing Electricity Businesses (1999). http://www.ieadsm.org/Files/Tasks/Task%206%20-%20Mechanisms%20for%20Promoting%20DSM%20and%20Energy%20Efficiency%20in%20Changing%20Electricity%20Businesses/Publications/resrpt2_fin.PDF	
	Research Report No 3: Developing Mechanisms for Promoting Demand-Side Management and Energy Efficiency in Changing Electricity Businesses (2000). http://www.ieadsm.org/Files/Tasks/Task%206%20-%20Mechanisms%20for%20Promoting%20DSM%20and%20Energy%20Efficiency%20in%20Changing%20Electricity%20Businesses/Publications/resrpt3_fin.PDF	
7 - International Collaboration on Market Transformation	Market Research Industry Consultation (2004). http://www.ieadsm.org/Files/Tasks/Task%207%20-%20International%20Collaboration%20on%20Market%20Transformation/Archive/Branding%20Energy%20Efficiency%20-%20IEA-DSM%20MT7%20Industry%20Consultation.pdf	A central goal of the work has been to find a better way to market energy efficiency. The study explores attitudes and behaviour in the field of energy efficiency, which are closely related to typologies and value patterns. Understanding the characteristics of these typologies and value patterns will be crucial for those wishing to market their energy efficient products and services effectively.
	Branding Energy Efficiency (2003). http://www.ieadsm.org/Files/Tasks/Task%207%20-%20International%20Collaboration%20on%20Market%20Transformation/Archive/Branding%20Energy%20Efficiency%20-%20IEA-DSM%20MT7%20Market%20Report.pdf	

8 - Demand-Side Bidding in a Competitive Electricity Market	Brochure with introduction to the concept. http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/brochure.pdf	Demand Side Bidding (DSB) is a mechanism that enables consumers to actively participate in electricity trading, by offering to undertake changes to their normal pattern of consumption. Measures aimed at producing long-term changes in demand, e.g. traditional Demand Side Management programmes that result in permanent demand reduction, are outside the scope. DSB may be applied for balancing of the system and/or for frequency response.
	Market participants' views towards, and experiences With, Demand Side Bidding (2002). http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/Stage1ReportV2.pdf	
	A Practical Guide to Demand-Side Bidding. http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/PracticalGuideToDSB.pdf	
9 - The Role of Municipalities in a Liberalised System	29 Case studies (from Europe and Northern America) of Good Practice in Rising to the Challenge of Liberalisation. (2002) http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/MEELSCaseStudies.pdf	This project is investigated how the roles of local authorities in demand side management are affected by a liberalised market. Demand side management includes action to improve energy efficiency, load management and action to reduce CO 2 emissions by energy substitution. Local authority activities in this field were assessed for replicability, choice of targets, its effectiveness in producing long term results, response to social and political needs, response to conditions of the liberalised market and the likelihood of resources and financing being found on a long term basis.
	General Background to the Energy Sector in the Participant countries and how it has been affected by Liberalisation (2002). http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/GrazReport1Final.pdf	
	The Roles of Municipalities in the Energy Sector. (2002) http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/GrazReport2Final.pdf	
	A number of more detailed but also popular articles in newsletters are available on http://www.ieadsm.org/ViewTask.aspx?ID=17&Task=9&Sort=1#ancPublications3	
10 – Performance Contracting	The original documents are available on http://www.ieadsm.org/ViewTask.aspx?ID=17&Task=10&Sort=1	This task was reported 2003 and 2004 but has been superseded by task XVI. The final report is still a good primer to the concept of ESCOs and how it has developed. http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/TX_SummaryReport_May03.pdf
11- Time of Use Pricing and Energy Use for Demand Management Delivery	The original documents are available on http://www.ieadsm.org/ViewTask.aspx?ID=17&Task=11&Sort=0#ancPublications3	This task was reported 2007 but has been superseded by and covered in Task XIII. The final report still has some interest in terms of concept descriptions. http://www.ieadsm.org/Files/Tasks/Task%20XI%20-%20Time%20of%20Use%20Pricing%20and%20Energy%20Use%20for%20Demand%20Management%20Delivery/Reports/Task%20XI%20Final%20Report%206%20Nov%2007.pdf
12 - Cooperation on	This Task was prepared but not launched. The work is now	-

Energy Standards	considered by the 4E Programme.	
13 - Demand Response Resources	**Demand Response Resources - Guidebook (2006)** Section 1 - Background Information Section 2 - Getting Started Section 3 - DR Resource Base Section 4 - Market Potential Section 5 - DR Valuation Section 6 - Technologies Section 7 - Market Barriers and Solutions Section 8 - Drafting the Business Plan DRR Guidebook - Appendices	DRR provide the long-term risk management insurance that is needed if competitive electricity markets are to work. The ability to call upon thousands of megawatts contractually, on short notice and in specific locations provides a virtual storage asset that can be used for short duration demand peaks, facilitate power restoration, and provide a means of transition to, or possibly prevent, new power system upgrades. Recognizing the urgent need for demand side participation in electricity markets to ensure energy security and mitigate price volatility in liberalized electricity markets.
	Communication Toolkit (2006) Toolkit (pdf) Guide, Template and Forms (pdf)	
14- Market Mechanisms for White Certificates Trading	Market Mechanisms For White Certificates Trading - Task XIV Final Report. http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/TaskXIVFinalReport.pdf	White Certificates are certificates issued by a regulatory or other public Agency, against the fulfilment of obligations on energy savings targets. These targets are expressed in terms of an amount of energy that should be saved as a result of energy efficiency programs, promoting and facilitating the provision of energy services and energy efficiency measures to all end-use sectors (including the domestic and commercial sectors, the public sector, and small and medium-sized enterprises).
15 - Network Driven DSM (2008)	Report No 1: Worldwide Survey of Network-driven Demand-side Management Projects. Second edition	Problems in electricity networks are becoming significant where electricity demand is increasing and network infrastructure is ageing. As loads grow and infrastructure reaches the end of its economic life, the potential cost of augmenting and providing support services for electricity networks is increasing exponentially. DSM measures which can be used to relieve constraints on electricity networks . All types of constraint are being addressed, including capacity limitations, voltage fluctuations, reliability issues, etc. Such network-driven DSM measures are often more cost-effective, and may also have lower environmental impacts, than network augmentation
	Report No 2: Assessment and Development of Network-driven Demand-side Management Measures. Second edition	
	Report No 3: Incorporation of DSM Measures into Network Planning. Second edition	
	Report No 4: Evaluation and Acquisition of Network-driven DSM Resources. Second edition	

	Report No 5: The Role of Advanced Metering and Load Control in Supporting Electricity Networks	
16 - Competitive Energy Services (Energy Contracting, ESCo Services) **ACTIVE:** http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=16&Sort=0	Report of Phase 1 (July 2006 – June 2009) with a focus on the key results of the task work: "Integrated Energy-Contracting" model, "Comparison of Financing Options", "Comprehensive Building Refurbishment through EPC", "Energy-Contracting in the Residential Sector" and "Opportunity Cost Tool". http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/100608_T16-ExCo_Final%20Task%20Report%20(2006-2009).pdf Comprehensive Refurbishment of Buildings through Energy Performance Contracting. A Guide for Building Owners and ESCos. http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/IEAdsm-TaskXVI_Bleyl,%20Schinnerl_Comprehensive%20Refurbishment%20of%20Buildings%20through%20EPC_081118_vers2.pdf What is Energy-Contracting (ESCo or Energy Efficiency Services)? Concept, Definition and Two Basic Business Models http://www.ieadsm.org/Files/Tasks/Task%2016%20-%20Competitive%20Energy%20Services%20(Energy%20Contracting,%20ESCo%20Services)/Publications/What%20is%20Energy-Contracting_Task16-Discussion%20paper-Rev.3_131014.pdf The Life of ESCo Project Facilitators (Task 16 and 24) http://www.ieadsm.org/Files/Tasks/Task%2016%20-%20Competitive%20Energy%20Services%20(Energy%20Contracting,%20ESCo%20Services)/Publications/Task24-T16_ESCo%20facilitators_(5-pager)_1407.pdf	An Energy Service Company (ESCo) takes over the technical and commercial implementation and operation risks and has to guarantee for it's cost and results. ESCo services are also well suited to implement innovative energy technologies and renewable energy systems. The ESCo industry is an expanding business throughout the world contributing to the improvement of energy efficiency, control of energy costs and reduction of greenhouse gas and other emissions. The models of offering these services can get various forms like Energy Supply Contracting (ESC) or Energy Performance Contracting (EPC) resulting in diverse contract models and financing arrangements. ECEEE-papers: • A role for facilitators http://www.ieadsm.org/Files/Tasks/Task%2016%20-%20Competitive%20Energy%20Services%20(Energy%20Contracting,%20ESCo%20Services)/Publications/Bleyl%20et.al_ESCo%20Facilitator_ECEEE_130322[2]%20kopia.pdf • Conservation First! The New Integrated Energy- Contracting Model to Combine Energy Efficiency and Renewable Supply in Large Buildings and Industry http://www.ieadsm.org/Files/Tasks/Task%2016%20-%20Competitive%20Energy%20Services%20(Energy%20Contracting,%20ESCo%20Services)/Publications/1106_ECEEE%20(paper%201-485)_Bleyl_Integrated%20Energy-Contracting.pdf
17 - Integration of Demand Side Management, Energy Efficiency, Distributed	State of the art report. http://www.ieadsm.org/Files/Tasks/Task%2017%20-%20Integration%20of%20Demand%20Side%20Management,%20Energy%20Efficiency,%20Distributed%20Generation%20and%20Renewable%20Energy%20Sources/Final%20reports/Synthesis	Implementing an energy policy to promote energy efficiency, distributed generation and renewable energy resources, the share of distributed energy will increase, including the intermittent energy sources such as wind, solar, small hydro and combined heat and power (small and micro-CHP).

Generation and Renewable Energy Sources **ACTIVE** http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=17&Sort=0	%20Report%20Final.pdf Annexes - Country reports - List of software tools for the analysis of integration of DR, DG, smart grids and energy storages - List of pilots and case studies http://www.ieadsm.org/Files/Tasks/Task%2017%20-%20Integration%20of%20Demand%20Side%20Management,%20Energy%20Efficiency,%20Distributed%20Generation%20and%20Renewable%20Energy%20Sources/Final%20reports/Synthesis%20report%20-annex%20final.pdf Summary and conclusions http://www.ieadsm.org/Files/Tasks/Task%2017%20-%20Integration%20of%20Demand%20Side%20Management,%20Energy%20Efficiency,%20Distributed%20Generation%20and%20Renewable%20Energy%20Sources/Final%20reports/Subtask%209%20Summary%20final.pdf	Intermittent types of electricity generation are difficult to predict. This makes electrical networks and market turn to integrated distributed energy resource as a solution. By combining distributed generation with energy storage and demand response, a country can decrease problems caused by distributed generation and increase the value of intermittent energy in the market. Microgeneration and new end-use technologies can present significant effects to several stakeholders. Most importantly, the consumer himself, network companies and electricity supplier (retailer) are involved. Network companies may either benefit or suffer from the introduction of microgeneration, heat pumps and Electric Vehicles, depending on the specific technology and how it is used. The consumer can contract an aggregator to sell the microgeneration or load flexibility to competitive energy market participants or network companies.
18 - Demand Side Management and Climate Change (2010)	Report No 1: Interactions between Demand Side Management and Climate Change Report No 2: Principles for Assessing Emissions Reductions from DSM Measures Report No 3: Mitigating GHG Emissions and Delivering Electricity System Benefits Report No 4: Funding DSM Programs with Revenue from Carbon Trading	This will enable countries and organizations to: • Understand the interactions between DSM and climate change. • Develop **methodologies for assessing** the GHG emissions reductions available from specific DSM measures. • Gain information about using DSM programs to **mitigate GHG emissions**, and about using GHG emission mitigation programs **to deliver benefits to electricity systems.** • Identify **opportunities for funding** DSM programs with revenue from GHG emissions trading schemes. • Explore whether **time of use pricing** can be used to achieve mitigation of GHG emissions. • Gather the information necessary to **launch and participate in deployment programs** for demand-side technologies.
19 - Micro Demand Response and Energy Saving	Evaluating The Business Case for Micro Demand Response and Energy Saving (2010). http://www.ieadsm.org/Files/Exco%20File%20Library/Key%20Publications/XIX%20Evaluating%20The%20Business%20Case%20_October%202010_.pdf Requirements and Options for Effective Delivery http://www.ieadsm.org/Files/Tasks/Task%2019%20Micro%20De	The domestic and SME sectors alone consume up to 50% of the electricity generated in developed countries, and are good targets for energy saving measures. The involvement of those demanding energy can help to improve overall system balance and thus reduce the peak generation capacity and spinning reserve. For domestic and SME customers to achieve these benefits, it is necessary to influence millions of micro loads. Relatively small amounts of demand flexibility can have large benefits in reducing peak capacity requirements.

	mand%20Response%20and%20Energy%20Saving/Publications/Task%20XIX%20Evaluating%20The%20Business%20Case%20_October%202010_.pdf	
20 - Branding of Energy Efficiency http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=20&Sort=0	Check also Task 5 and Task 7. Report on Best Practices in Branding of Energy Efficiency – September 2014 http://www.ieadsm.org/Files/Tasks/Task%2020%20-%20Branding%20of%20Energy%20Efficiency/Publications/Task20_Report-on-Best-Practices-in-Branding-of-EE.pdf Report on Case Studies in Branding of Energy Efficiency – September 2014 http://www.ieadsm.org/Files/Tasks/Task%2020%20-%20Branding%20of%20Energy%20Efficiency/Publications/Task20_Report-on-Case-Studies-in-Branding-of-EE.pdf	Branding of energy efficiency products and services would increase their visibility and credibility. The task will explore the avenues available to national governments to promote branding of energy efficiency. To be successful at branding, it would be necessary to work on three levels: • products/services and suppliers, • consumers • strategic or policy level. At product/service level, one will have to be deal with several problem areas such as lack of accurate definition of product/service, strong relationship with maturity of electricity market, lack of awareness, lack of appeal, etc. At consumer level, it may be necessary to understand the consumer behaviour across markets as well as societal strata, by employing advanced marketing/branding theories such as cognitive information processing, emotion driven choice, etc.
21- Standardisation of Energy Savings Calculations	Harmonised Energy Savings Calculations for selected end-use technologies, key elements and practical formulas http://www.ieadsm.org/Files/Tasks/Task%2021%20-%20Standardisation%20of%20Energy%20Savings%20Calculations/final%20public%20version/Report%20on%20Energy%20savings%20calculation%20final%20version.pdf Roadmaps for improved Harmonised Energy Savings Calculations http://www.ieadsm.org/Files/Tasks/Task%2021%20-%20Standardisation%20of%20Energy%20Savings%20Calculations/final%20public%20version/Roadmaps%20improved%20harmonised%20ESC%20final.pdf	Estimations concerning (projected) energy savings, emissions reductions or financial gains from energy efficiency measures are now rather common. But these estimations are conducted in such a broad range of approaches that they hinder (international) comparison of calculated energy savings. The overall aim is to identify basic concepts, calculation rules and systems for Energy Savings Calculations (ESC) standards. Both energy savings, emissions avoidance calculation methods and standards will be evaluated for efficiency activities. In addition to this a methodology should be developed to nominate and describe the several Demand Response products. Country reports available for France, Norway, Spain, Korea, USA and The Netherlands.
22 - Energy Efficiency Portfolio Standards	Best practices in designing and implementing energy efficiency obligation scheme 2012 June http://www.ieadsm.org/Files/Tasks/Task%2022%20-%20Energy%20Efficiency%20Portfolio%20Standards/Publications/RAP_IEADSM_Best%20Practices%20in%20Designing%20and%20Implementing%20Energy%20Efficiency%20Obligation%20Schemes%202012%20June.pdf	Many countries have set policy targets for reducing emissions and have identified energy efficiency as one of the measures along with coordinated efforts to secure funding arrangement for these programmes. Several states in the United States and European countries have adopted Energy Efficiency Portfolio Standards (EEPS) like programmes as part of their efforts to mobilise energy efficiency improvements. These programmes provide market based instrument to utilities to achieve defined target for energy savings.

23 - Role of the Demand Side in Delivering Effective Smart Grids **ACTIVE** http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=23&Sort=0	This Task is co-ordinated with ISGAN. Check also Task 19.	The aim 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.
24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice **ACTIVE** http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=24&Sort=0	Subtask 1 Analysis - Final Report ("Most of the time what we do is what we do most of the time. And sometimes we do something new") http://www.ieadsm.org/Files/Tasks/Task%2024%20-%20Closing%20the%20Loop%20-%20Behaviour%20Change%20in%20DSM,%20From%20Theory%20to%20Policies%20and%20Practice/Publications/Task%2024%20Subtask%20I%20Final%20Report.pdf The little monster - Subtask 1 case study storybook http://www.ieadsm.org/Files/Tasks/Task%2024%20-%20Closing%20the%20Loop%20-%20Behaviour%20Change%20in%20DSM,%20From%20Theory%20to%20Policies%20and%20Practice/Publications/The%20Little%20Monster%20storybook%20copy.pdf	Closing the loop between behaviour change research theory, successful policy implementation and positive outcomes for the energy user from DSM projects. Key questions: • Understanding which categories of (energy) behaviours need to be addressed to maximise impact • How these behaviours come about and why more sustainable behaviours are shunned by energy users • How decisions come about, and what the roles of norms, values and attitudes are; what the individual and more systemic barriers and drivers to these behaviours are • What (policy) instruments could be effective and efficient in reducing or removing these barriers or facilitating the drivers; and
25 - Business Models for a more effective uptake of DSM		This task sets out to identify proven and potentially successful business models for energy services for DSM on a national level, and develop effective policy strategies, stakeholder roadmaps and business models to upscale and mainstream these energy services on a

energy services **ACTIVE** http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=25&Sort=0		national (ecosystem) level. The main objectives of this Task are to: · What works, how does it work and what kind of framework conditions do we need? Identify proven and potential business models for energy services on (first phase) issues of common interest in different countries, with special focus on how to create conducive different market dynamics and policies in different countries; · Analyze acceptance and effectiveness of these business models in creating lasting load reduction, or generation and other non-energy benefits and in creating a market; · Research success and failure factors by means analyzing business models in their socio-technical or ecosystem context; · Develop canvas for energy service businesses to be able to more effectively develop business models and value networks able to mainstream and upscale on a national level and disseminating it through national workshops; · Creating a set of guidelines, and advice supporting the creation of policies to encourage market creation and mainstreaming of business models in different countries; · Creating and maintaining a digital platform for shared learning, best practices and know-how with national sub departments focused on bringing knowledge to the national market, including banks and other funders; · Develop a database (as far as possible) including (national context sensitive) useful contractual formats, business plans etc.

Document H

TASK 17 – INTEGRATION OF DSM, DISTRIBUTED GENERATION, RENEWABLE ENERGY SOURCES AND ENERGY STORAGES

Summary

Phase 3 of IEA-DSM Task 17 will address the current role and potential of flexibility in electricity demand and supply of systems of energy consuming/producing processes in buildings (residential, commercial and industrial) equipped with DER (Electric Vehicles, PV, storage, heat pumps, ...) and their impacts on the grid and markets. The interdependence between the physical infrastructure of grid and the market side will also be looked upon. The scalability and applicability of conducted and ongoing projects with respect to specific regional differences and requirements will be explored (see *http://www.ieadsm.org/ViewTask.aspx?ID=16&Task=17&Sort=0)*.

Objectives for the last six months

Subtask 10 – Role and potentials of flexible consumers

Assess the concepts and implementations of customer and home energy management systems (CEMS/HEMS), possibly linked to the smart meter, in different (participating) countries by:

- Comparing DR and DG specific requirements in households, communities, functional (office) buildings and industrial processes
- Role of Smart Meters (SM), (CEMS/HEMS gateways) and their interaction with flexible demand/supply devices as well as distributed energy resources in the terms of technical concepts
- Role of telemetry and existing process control systems and their interface to the HEMS or SM
- Evaluating strengths and weaknesses of ICT enabled aggregations of flexible demand and controllable DERs in the form of energy communities

Progress towards Subtask objectives

- The delivery document structure and content has been proposed by the OAs and will be discussed with the experts in the next webmeeting to share the work and prepare for final discussion at the next expert meeting (June 2015).

Subtask 11 - Changes and impacts on grid and market operation

Assess the impact on grid and market operation based on technology penetration scenarios developed in subtask 5 and 9 (developed in phase 2) by investigating the following areas of interest:

- Energy balancing possibilities and potentials for commercial and grid operation optimization objectives of CEMS.
- Optimization potentials from a technical and market point of view using the SGAM framework
- Design a methodology to estimate potential and to cost effective activation in-line with SGAM and SGMM.
- Regulatory and market design issues for grid and (local) market operations

Progress towards Subtask objectives

- The task started and inputs from the experts, studies and workshop participants are analysed.

Subtask 12 - Sharing experiences and finding best practices

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 derived from workshops (e.g.; E-Energy Germany, EcoGrid-EU Bornholm, PowerMatchingCity-I and –II, NL-TKI, model city Salzburg, Amsterdam SmartCity, …)
- Innovation projects with large scale demand response in industry
- Comparisons and analysis of country specific differences in the implementation
- Assessment and development of a methodology to apply different demand response mechanism to individual countries.
- Extrapolation of the results from previous collected projects on applicability on a large scale.

Progress towards Subtask objectives

- Important and representative projects have been collected from the expert's presentation and inputs.
- The selected pilot projects are taken for the analysis part of the deliverable from Subtask 10.

Subtask 13 – Conclusion and Recommendations

Recommendations will arrived at in close interaction with the experts' opinions and will at least provide a ranking based on impacts, costs and likely future penetration of the technologies.

Progress towards Subtask objectives

This Subtask has not yet commenced.

Experts meetings/seminars/conferences held in past six months

These tables are important for our report back to the EUWP, including the number of attendees and what sector they represented.

Experts meetings

Date	**Place**	**# of Experts**	**Type of meeting**	Govern-ment	Industry	Academic
17.9.2015	Webconference	7	Web Meeting	0	3	4
3./4.11.2015	Leiden (NL)	11	Task Meeting	0	5	6

Seminars/Conferences

Date	**Place**	**Partcipants**	**Type of meeting**	Govern-ment	Industry	Academic
15.10.2014	Vienna, Austria	80+	IEA Net-working Workshop	20	25	25
22.10.2014	Berlin, Germany	50+	IEA EGRD Workshop	20	25	5

Reports produced in the past six months

Mention here all publications (reports, articles, blogs, columns, webinars etc.) that you have produced in the last 6 months. Include detail on what type of publication it is.

- Report on the IEA Networking Workshop on "Electricity of the Future – RES – SG and Active Customers" has been published from the Austrian Ministry.
- Report on the IEA EGRD Workshop on "The Role of Storage in Energy System Flexibility" has been published from the IEA EGRD office.

Objectives for the next six months

Again, only fill in the Subtasks you will work on in the coming 6 months.

Subtask 10 - Role and potentials of flexible consumers

Deliverable of Subtask 10: *Current role and potentials of flexible consumers and producers in commercial segments, households, communities and buildings*

Subtask 11 - Changes and impacts on grid and market operation

Prepare and Discuss Deliverable of Subtask 11: *Financial and maturity assessment of technologies for aggregating DG-RES, DR and electricity storage systems*

Subtask 12 - Sharing experiences and finding best practices

Update and Analyse projects.

Experts meetings/seminars/conferences planned in the next six months

Planned Experts meetings

Date	Place
17. 9. 2014	Webconference Expert Meeting
29.6.-2.7	Expert Meeting (The Netherlands alligned with IEEE PowerTech)

Planned seminars/conferences

Date	Place
29.6.-2.7	Panel Session on Demand Response (IEEE PowerTech)

Reports/Publications planned for the next six months

- Deliverable of Subtask 10
- Webinar: Contribution to *DSM University* tacking task 17 objectives and previous findings.
- (Conference article about state of the art / projects in DR of participating countries)

Outreach

Note any other outreach activities (on top of the seminars, conferences, workshops and publications mentioned above). This can include social media outreach or meetings with funders or experts. You can also mention any particular success stories based on feedback you have received about your Task here.

- Workshop on IEA EGRD in Berlin, Germany – Role of DSM in Network Flexibility
- Ongoing exchange with potential new participating countries
    - Contact with Indian ExCo – but no response so far.
    - Contact with Serbia – no funding but high interest
    - Contact with German Ministry for participation in DSM IA and Task 17 – re-considering joining the IA – no response so far.
    - Contact with experts from Finland → Highly probable to join in Spring 2015
- Member of the *'Flexibility in Power Systems Advisory Panel'* for Ecofys study (Matthias)

Ideas for New Work

Particularly future research based on your Task findings. Identify if it would lead to a potential Task extension or a new Task.

- New task proposal: Big Data for Energy Efficiency

Finance

Update of your budget since the last Status Report (total spend to date, spending in last 6 months, income in last six months, total income. Indicate if budget/progress are on track).

Realization AIT: approximately 55k/~25k Euro All / last 22 month
Realization TNO: approximately 14292/~8.5k Euro All / last 22 months
Offers and invoices have been sent.

	Country	Commitment	Offer	Contractpartner	Signed	Contact
1	Austria	Y	(Y)	AIT	Y (OA and CR together)	
2	Switzerland	Y	Y	AIT	Y	
3	Sweden	Y	Y	TNO	Y	
4	Copper Alliance	Y	Y	TNO	Y	
5	The Netherlands	Y	Y	TNO	Y	
6	USA	Y	Y	AIT	N	
7	Italy	N	Y	TNO	N	Rene
8	Serbia	N	N			Matthias
9	India	N	N	AIT	N	Matthias
10	Germany	N	N	AIT	N	Matthias
11	Finland	N	N			Matthias/Rene

Vito in Belgium decides before November 2014 on participation. RSE is the contract partner for Italy, while factoring is to the University of Ancona (Prof. Comodi is the country expert).

Activity Time Schedule

IEA-DSM TASK XVII - Phase 3	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16
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								

Matters for the ExCo

Recommend the ExCo to approve the Task Status Update Report'.

Participating Countries

Status of participating countries:

Country	Commitment
Austria	Y
Switzerland	Y
Swede	Y
Copper Alliance	Y
The Netherlands	Y
USA	Y
Italy	N
Belgium	N
Serbia	N
India	N
Germany	N
Finland	N

Document I

TASK 24: CLOSING THE LOOP – BEHAVIOUR CHANGE IN DSM: FROM THEORY TO PRACTICE

1. Summary

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 extension, helped address these difficulties by developing guidelines, recommendations and examples of best (and good) practice and learning's from various cultures and contexts. We rely on a large, global network of 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 a 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. This Task (Phase I) had several Deliverables, including the expert network and platform for continued exchange of knowledge and successes, the large-scale analysis of the helicopter overview and case studies, several reports, factsheets and guidelines on how to evaluate behavioural interventions and the country reports with specific to do's and not to do's, future research questions and re-iterated case studies following our best practice recommendations. Phase I of this Task is about to be finalised and Phase II (How to help the Behaviour Changers) is about to commence.

2. Objectives for the last six months

Subtask 1 – Progress towards Subtask objectives

- All information from the 'Monster' to be put on a wiki (www.ieadsmtask24wiki.info)
- Further case studies to be collected and added to the Wiki
- Complete missing case studies for Belgium (done) and Italy (not done, due to limited expert time)

Progress towards Subtask objectives

Progress in last six months was very satisfactory, as we now have almost 60 case studies from 16 countries around the world. The Wiki especially should be useful to experts and ExCo to be able to more quickly find the parts that are of specific interest to them. One deliverable that hasn't been met is to bring together the Advisory Board - it has been pulled together, but not yet been used to provide collective input into the Task. We suggest to get a final comment from the AB with the completed package of reports. The energy experts video was received very well at workshops is seen as a strong tool to bring the message across in the words of the experts (who also show themselves to be very human in their energy use). The Wiki and the 'Monster' will be living documents and we will continue to collect and add case studies in Phase II.

Subtask 2 – Progress towards Subtask objectives

- Collection of detailed case studies and best practice in four overarching themes
- Includes (filmed) interviews in Italy
- Analysis of case studies so far collected (Fully completed: NL, NZ, SE, NO. Draft: CH, AT. Missing: BE, IT)

Progress towards Subtask objectives

Progress in last six months has been good - SE and NO have now completed their detailed ST2 country case studies. CH (on the 2000 Watt Society) and AT (on €CO2 Management and the Energy Neighbourhoods 2) are nearing completion and will hopefully be finalised by the ExCo meeting. Italy's case study interview has been conducted in the October Milan workshop but there is no national resource available to analyse the case in depth. The findings from the interview will flow into the ST4 report for Italy (also truncated due to lack of expert input). Belgium will not have an ST2 report due to lack of a dedicated national expert.

Subtask 3 – Progress towards Subtask objectives

4. Tool to enable better evaluation of successful behaviour change outcomes
5. Built on Methodological Review of the literature by Karlin and Ford called 'What do we know about what we know' (Deliverable 3)
6. Positioning Paper called 'Did you behave as we designed you to?' (Deliverable 3A)
7. Guidelines and Factsheets called 'From "I think I know" to "I understand what you did and why you did it" Deliverable 3B.

Progress towards Subtask objectives

Progress in last six months has been excellent and this Subtask has been finalised in the scope of what Phase I permitted. The 'Beyond kWh' methodological review has been completed in kind by researchers at the Universities of California Irvine (USA) and Victoria (NZ). Their report clearly shows that there is indeed no standard way of evaluating behavioural interventions, or collecting behavioural data in the feedback and building retrofit areas. This included all the case studies from the Subtask I 'Monster' that fit the coding criteria. We will build on the findings and recommendations of this report in Subtask 9 of Phase 2.

We have also undertaken a detailed review on evaluation and discussed their issues with experts at the Oxford and Graz Task 24 workshops (Sept/Oct, 2014), where valid expert insights have led to a strong framework for the final positioning paper. It became obvious that this work is extremely difficult and needs more in-depth attention. The report delves in-depth into definitions around monitoring and evaluation (M&E) of behavioural interventions; how the 3 disciplinary approaches (economics, psychology and sociology) differ in their M&E methods; the many challenges we are facing when M&E behavioural interventions and recommendations of how to overcome them by changing from a single- to a double-loop learning approach.

The final report delves into how to deliver such double-loop learning approaches on different behavioural elements (the individual, the social, the political and the infrastructural), on different behaviours (investment vs. habitual) and on different intervention tools. Three tools in the building retrofit domain were chosen to show how the factsheets for Behaviour Changers outlining both single- and double-loop learning and M&E would look like (Energy Performance Certificates, Mass Marketing Campaigns and Subsidies and Loans). We will develop further factsheets with the relevant Behaviour Changers in other intervention tools in all of our domains (Phase 2 - Subtask 8).

Subtask 4 – Progress towards Subtask objectives

- Country stories
- Country-specific recommendations, to do's and not to do's

Progress towards Subtask objectives

Progress in last six months was excellent, we have now collected all country stories. Country-specific recommendations have been collected, in part, via stakeholder feedback questionnaires (both during workshops and as part of Survey Monkey after) and been pulled together into country-specific reports. We have completed three reports (NL, NZ and SE) and

hope to have completed NO, CH and AT by the ExCo meeting. BE and IT will have truncated versions, due to limited national expert input.

Subtask 5 – Progress towards Subtask objectives

- Expert platform continually growing and getting used
- New content including presentations, videos and reports uploaded
- Continue publicising and dissemination of Task 24, including at international conferences

Progress towards Subtask objectives

Progress in last six months was highly satisfactory, we now have >225 experts on the expert platform and professional films from all presentations of the Wellington storytelling workshop, as well as the experts' energy story short film and the Graz workshop. All other final reports also on the ning site and the IEA DSM website. Google Analytics show continued strong utilisation of the website, especially after broadcast emails with links to all new content are sent (time spent on site usually around 10 minutes). We continue having great successes in matchmaking experts, with several spending time at each others' Universities, for example, or developing new research collaborations. The dissemination of the Task is going great, there were another 2 Spotlight articles, the German Energy Association translated our ESCo Facilitator report into German and publicised it and Ruth was invited to give a talk at a large ESCo conference in Milan in January. We held the first of a series of seminars in Sheffield Hallam University (October 2014), another lecture to the International Energy Center in Queensland (Australia) and a stakeholder workshop in Wellington (February 2015). In addition, Ruth gave our first Task 24 webinar for the IEA DSM University, which had over 300 registrations. We have been accepted for two Task 24 papers at the eceee summer study (June 2015), one on storytelling and one on evaluation and continue to be invited to give keynotes (e.g. in South Africa at the Cape Town workshop) and talks around the world.

Experts meetings/seminars/conferences held in past six months

Experts meetings

Date	Place	# of Experts	Type of meeting	Government	Industry	Academic
24/10/14	London, UK	12	SHM	4	2	6
17/2/15	Wellington, NZ	10	SHM	8	2	

Seminars/Conferences

Date	Place	Participants	Type of meeting	Government	Industry	Academic
26/10/14	Sheffield, UK	40+	Seminar		1	40
21-22/1/15	Milan, Italy	100+	Conference			
14/1/15	DSM University	300	Webinar			

Reports produced in the past six months

- 2 IEA DSM Spotlight Issues
- Filmed presentations and minutes from Graz workshop
- Oxford workshop official UKERC report
- Three ST2 country case study reports (SE, NO, CH)
- Three ST3 reports (Deliverables 3, 3A and 3B)
- Three ST4 reports (NZ, NL, SE)
- 2 eceee peer-reviewed papers
- Summary presentation of all collected findings and recommendations of Task 24

3. Objectives for the next six months

Subtask 1
Finalise the 'Monster' and wiki with remaining case studies and analysis, run past AB.

Subtask 2
Finalise country reports from Austria, Switzerland.

Subtask 3
Collect feedback from ExCo/experts and finalise 3 reports.

Subtask 4
Finalise country-specific feedback for AT, CH, NO, BE, IT (truncated).

Subtask 5
Continue expert platform and dissemination efforts for Task 24 extension.

Experts meetings/seminars/conferences planned in the next six months

Planned Experts meetings

Date	Place
February 2015	Wellington, NZ
March 2015	Cape Town, SA
April 2015	Wellington, NZ
May, 2015	Toronto, CA
June, 2015	eceee Summer Study, FR
June, 2015	Graz, AT
July, 2015	Stockholm, SE
August, 2015	San Diego, USA
September, 2015	Eindhoven, NL

Planned seminars/conferences

Date	Place
March 2015	Cape Town, SA
May, 2015	London, UK
June 2015	eceee 2015 Summer Study, FR

Reports planned for the next six months
DSM University webinar; 2 more country-specific case study ST2 reports; Monster Wiki finalised; 5 more ST4 recommendations; Spotlight article; at least one blog for IEA DSM

4. Outreach
The Task is particularly good at outreach and dissemination and is incredibly well known, globally, as attested by the many experts on our network who know us or the Task from various international behaviour and energy conferences (such as BECC, BEHAVE, ECEEE, IEPPEC). We often get invited to chair sessions, give keynote addresses and be part of plenaries and panel discussions. Our social media reach is very wide - tweets by @DrSeaRotmann usually reach an audience of several 10000s. Our slideshare channel with all of our presentations has been viewed and downloaded over 10000

times. We just got asked to be part of international University lecture series in Brisbane and Belgium. Several respected academics want to co-author scientific publications with us, specifically on storytelling and evaluation, where we are seen to have broken real ground. The idea of the Behaviour Changers and the diagrams used to present the 'human aspect' of energy use (as seen in our Task 24 extension proposal) have been met with really strong support and very positive feedback. We continue to talk to, and visit countries not currently in the DSM network (eg Canada, South Africa and Australia) in order to engage them with our work (and join 'the family).

5. Ideas for new work

Our Task 24 extension work programme is ready to go and has been financed (so far) by Sweden, Austria, New Zealand and the Netherlands. We hope to also attract the UK, US, Canada, South Africa, Switzerland and Norway to join the extension programme.

6. Finance

Budget is on track, although Austria's second payment and all of South Africa's are still outstanding. We had to assume, without further contact, that the South African participation would shift to Phase 2. We need to make a point, yet again, that small business owners such as both Duneworks and SEA Ltd seriously suffer from any delayed (or not

Income	Cost
Country participation: NL €40,000 (finished) SE €40,000 (finished) NZ €40,000 (finished) NO €40,000 (finished) CH €40,000 (finished) BE €40,000 (finished) IT €40,000 (finished) AT €20,000 (20K outstanding) SA all outstanding €300,000	Person months Sea Rotmann 36pm Ruth Mourik 18pm €243,000
In-kind: UKERC Meeting Place Oxford Workshop contribution €40,000 NZ Workshop contributions (x2) NZ$3600 NZ$5000 Energy Savers Dubai Workshop contribution Approx €1000 In-kind expertise from non-participating countries: Over 20 weeks expert time	Travel and web development, video, incidentals: Sea Rotmann €62000 Ruth Mourik €15000 €77,000

7. Activity Time Schedule

Task 24 started its operation in January 2012, although its final work programme was not officially balloted by the ExCo until July 2012. The ExCo has agreed in Espoo Nov 2012, to take the official Task starting date as July 2012, which will mean it will finish in January 2015 as there are now 8+ countries participating (at no extra cost to participating countries). Due to delays from national experts (whose inputs into country reports and case studies was an imperative part of task sharing), we hope to have Phase I fully completed by the ExCo meeting in March 2015. A 3-year Task extension will turn theory into practice by more in-depth work with experts from participating countries. Particular

emphasis will lie on evaluation methods of ongoing, long-term behaviour change outcomes which can be linked back to specific DSM interventions.

Subtasks	2012		2013		2014		2015
Subtask 0 - Admin							
Subtask I - Helicopter Overview							
Subtask II - Case Studies							
Subtask III - Evaluation Template							
Subtask IV - Recommendations							
Subtask V - Expert Platform							

8. Matters for the ExCo

Recommend the ExCo to approve the Final Phase I Task Status Update Report.

Please note that we had serious issues getting a final contract and payment from South Africa. It is still thus unclear if SA will actually be part of Task 24, including in Phase II. Lack of engagement and serious resourcing limitations from some national experts have meant a lot of extra (unpaid) work for the OAs and time delays that were completely out of our hands.

9. Participating countries

Austria
Belgium
Italy
Netherlands
New Zealand
Norway
Sweden
Switzerland
UK (in kind only)

Document J

TASK 16: INNOVATIVE ENERGY SERVICES – PHASE III – ENERGY EFFICIENCY AND DEMAND RESPONSE SERVICES - Task Status Report

1. Summary

In Task 16 "Innovative Energy Services", energy service experts and partners from countries around the world join forces to advance know how, experiences and market development of performance-based energy services.

Main subtasks are individual National Implementation Activities, an Energy Services Expert Platform for mutual exchange and support and national/international dissemination activities including DSM University. The Think Tank is the common research platform with publications and presentations like the 'Integrated Energy-Contracting' business model, the 'Facilitator' concept, Comprehensive Refurbishment ('deep retrofit') business models or 'Simplified Measurement & Verification' of energy savings.

2. Objectives and accomplishments for the last six months

Subtask 13 – Progress towards Subtask objectives

Objective: The platform is the internal and external communication hub of Task 16. It consists of the national experts, the operating agent, invited guests and cooperation partners. The platform hosts the internal experts meetings as well as public stakeholder workshops and other seminars.

Progress towards Subtask objectives

- Execution of the 17th experts meeting held in Seoul, Korea, 23-24 October 2014. The main agenda items were presentation and discussion of national implementation activities, discussions on current Think Tank topics and dissemination activities
- Preparation of the 18th experts meeting, to be held in Hyères, France (back to back with eceee 2015 Summer Study)

Subtask 13 + 17 – Progress towards Subtask objectives

Objective: The expert platform hosts a series of public stakeholder workshops held back to back with each expert meeting to discuss Energy-Contracting topics relevant to the host country of the meeting and to present and disseminate results of Task 16.

Progress towards Subtask objectives

- 17th Task 16 stakeholder workshop in Seoul, Korea 22 October 2014:
  - *Morning session:* Good examples of ESCo in industry, public and building sectors
  - *Afternoon session:* Selected Think Tank results, Policies and examples of European ESCos and Chinese ESCo market situation
- Preparation of the 18th Task 16 stakeholder workshop to be held in Switzerland in fall 2015 (exact date and topic tbd)

Subtask 14 – Progress towards Subtask objectives

Objective: Applied research, development and testing of innovative Energy-Contracting models and tools and publication of the results

Progress towards Subtask objectives
Work continued on:

- A Task 16 discussion paper *Simplified measurement & verification + quality assurance instruments for energy, water and CO2 savings. Methodologies and examples*. Including examples and national perspectives of Task 16 experts
- Business models for comprehensive building refurbishment ('deep retrofit'): Further development of an *economic feasibility evaluation tool including sensitivity analyses* for deep retrofit application. Application of the tool in several case studies, e.g. in Denmark, Germany and Austria in cooperation with IEA ECB Annex 61
- Drafting of a *Taxonomy paper on Energy Services* to be published in a peer-reviewed journal in cooperation with University

Subtask 15 – Progress towards Subtask objectives

Objective: Assessing economic feasibility of demand response energy services business models

Progress towards Subtask objectives
Work continued on:

- Analyses finalized of Austrian capacity markets and framework (by e7)
- Development of a simplified capacity market DR revenue model for Austria to conduct feasibility analyses of business cases finalized
- Analyses of potential end-use sectors in Austria and preparation of a cement industry business case study (by e7)
- Drafting of a full paper on economic feasibility of DR business models for publication at Internationale Energiewirtschaftstagung (IEWT 2015)

Subtask 16 – Progress towards Subtask objectives

Objective: Implementation of country specific national activities to develop know how and energy service markets

Progress towards Subtask objectives

- Implementation of the individual NIA plans to develop know how and energy service markets were followed up, the experts gave detailed presentations and exchanged experiences and good practices during the last platform meeting and through teleconferences in between meetings

Subtask 17 – Progress towards Subtask objectives

Objective: Dissemination of Task 16 results and experiences through presentations, stakeholder workshops, publications, cooperation with other ES projects and the DSM University

Progress towards Subtask objectives

Publications and presentations at various national and international conferences and seminars were given, e.g.:

- *Economic evaluations to communicate between technicians and management. Methods, calculation and examples – an introduction*. Seminar for energy technicians in industry (Nov. 2014)
- ESCo manager trainings in Pakistan in cooperation with GIZ: *Investment grade*

Calculation, Analyses & Financing of ESCo Projects (for EPC and ESC Business Models). Introduction & hands-on training in Lahore, Pakistan (Dec. 2014)

- Presentation of an '*ESCo University'* as a pre-conference workshop and the ‚*Facilitator*' approach at the ESCo Europe conference 2015 in Milan (January 2014)
- Continue know how transfer + supervision for start-up ESCo in Croatia
  => *Wood gasification + CHP for heat & green electricity supply project* (5,0 Mio EUR investment)
- German-Chinese Energy Dialogue on Financing of Energy Efficiency in China: *Life Cycle Cost Appraisal and Calculation Methodologies for Energy Efficiency Projects* (February 2015)
- ESCO Committee of China Energy Conservation Association (EMCA) – *Bankable project calculation* (February 2015)
- Co-operation with other ongoing energy service projects
  - FH Pinkafeld applied science university
    => Master class on performance-based Energy Services
  - EBC Annex 61 => Deep retrofit business models
    => Feasibility assessment of model projects
  - Linköping University => ES taxonomy and other topics
  - dena (German Energy Agency) => Simplified M&V guidebook- ECB
  - 'EESI 2020' – lead by BEA and 'Transparense' – lead by sEVEN

Subtask 18 – Progress towards Subtask objectives

Objective: Project management and reporting

Progress towards Subtask objectives

- No particular activities in addition to regular work
- Preparation of Task 16 Phase IV: 3 countries committed so far

Experts meetings/seminars/conferences held in past six months

Experts meetings

Date	**Place**	**# of Experts**	**Type of meeting**	Govern-ment	Industry	Academic
22-24 Oct. 14	Seoul, Korea	14	Experts meeting	6	6	2

Seminars/Conferences/Workshops

Date	**Place**	**Partcipants**	**Type of meeting**	Govern-ment	Industry	Academic
22 Oct14	Seoul Korea	90	T16 Stakeholder workshop	10	70	10
12 Nov. 14	Vienna, Austria	20	seminar	5	15	0
27 Nov. 14	Gmunden, Austria	23	seminar	0	23	0
2-4 Nov.14	Lahore Pakistan	33	Workshop	4	27	2
17-18 Dec 14	GIZ-Eschborn, Germany	29	Workshop	23	4	2
19-21 Jan. 15	Milan, Italy	230	workshop + conference	30	200	20
09-17. Jan. 15	FH Pinkafeld	34	university	0	0	34
10-12 Feb. 15	TU Vienna	30	conference	5	5	20
11 Feb. 15	Beijing, China	15	workshop	0	15	0
12 Feb. 15	Beijing, China	30	workshop	10	15	5

Reports produced in the past six months

- *ESCo project and market development: A role for 'Facilitators' to play. Including national perspectives of Task 16 experts_* IEA DSM Task 16 discussion paper
- *Demand Response Services: Economic Feasibility Model and Case Study for Austria_IEWT 2015 conference paper (to be finalized)*

3. Objectives for the next six months

Subtask 13 – Energy Service Expert Platform

- Execution of the 18th experts meeting, to be held in in France May 30 – June 1 2015 (back to back with ECEEE summer studies). The main agenda items will be presentation and discussion of national implementation activities, discussions on current Think Tank topics and dissemination activities
- Preparation of the 19th experts meeting, to be held in Switzerland in fall 2015 (exact date tbd)

Subtask 13 + 17 – Stakeholder workshops

- Execution of the 18th Task 16 stakeholder workshop to be held in France back to back with ECEEE summer studies (exact topic tbd)
- Preparation of the 19th Task 16 stakeholder workshop to be held in Switzerland in fall 2015 (exact date and topic tbd)

Subtask 14 – Think Tank for innovative Energy-Contracting models and support tools

- Finalize work on Task 16 discussion paper *Simplified measurement & verification + quality assurance instruments for energy, water and CO_2 savings. Methodologies and examples. Including examples and national perspectives of Task 16 experts*
- Business models for comprehensive building refurbishment ('deep retrofit'): Application and further development of an *economic feasibility evaluation tool including sensitivity analyses* for deep retrofit business cases. Application of the tool for case studies in cooperation with IEA ECB Annex 61
- Submission of a *Taxonomy paper on Energy Services* to a peer-reviewed journal (either in Renewable & Sustainable Energy Reviews or Journal of Cleaner Production) in cooperation with Linköping University

Subtask 15 – Demand Response Services business models

- Finalization of analyses of potential end-use sectors (tertiary sector) in Austria and preparation of a cement industry business case study (by e7)
- Finalization of a full paper on economic feasibility of DR business models for publication at Internationale Energiewirtschaftstagung (IEWT 2015)

Subtask 16 – Coaching of individual National Implementation Activities (NIA)

- Continue implementation of individual NIA plans to develop know how and energy service markets.
- To follow up, experts will give detailed presentations and exchange experiences and good practices during the next platform meeting and through teleconferences in between meetings

Subtask 17 – Dissemination and cooperation

Publications, presentations or workshops planned:

- Co-operation with other ongoing energy service projects and institutions:
  - ECB Annex 61 => Deep retrofit feasibility analyses and business models
  - IEA IETS Annex 16 Energy Efficiency in SMEs => business models
  - Linköping University => ES taxonomy and other topics
  - FH Pinkafeld - applied science university => Master class on energy services
  - dena (German Energy Agency) => Simplified M&V guidebook (in German language)
- *Economic evaluations to communicate between technicians and management. Methods, calculation and examples – an introduction*. Seminar for energy technicians in industry (July & December 2015)
- Continuation of know how transfer and supervision for a start-up ESCo in Croatia on a 1 MW_{el} wood chip gasification CHP project
- ESCo manager trainings in Medenec, South Africa, Carrbiean in coperation with GIZ: *Investment grade Calculation, Analyses & Financing of ESCo Projects (for EPC and ESC Business Models)*. Introduction & hands-on training
- Presentation of an '*ESCo university*' as a pre-conference workshop at the ESCo Europe conference 2015 in Vienna (November 2015)
- Another Task 16 Leonardo ENERGY IEA DSM University webinar?

Subtask 18 – Management and Reporting

- in addition to regular management and reporting activities: Continue preparation of phase IV (c.f. separate 2-pager in last PMD). One or two more countries needed.

Experts meetings/seminars/conferences planned in the next six months

Planned Experts meetings

Date	Place
30.05-01.06.15	Hyères, France
Oct./Nov. 2015 (tbd)	Switzerland

Planned seminars/conferences

Date	Place
08 + 09. April 2015	Vienna, Austria (Seminar)
30 March – 01 April 2015	Cape Town , South Africa (workshop)
07 July 2015	Gmunden, Austria (Seminar)
Dec. 2015 Jan. 2016	FH-Pinkafeld, Austria (Lecturing)
April, August, exact dates tbd	Pakistan, Carribean, Medenec (Trainings + workshops)

Reports/Publications planned for the next six months

- *Demand Response Services: Economic Feasibility Model and Case Study for Austria* for publication at Internationale Energiewirtschaftstagung (IEWT 2015)
- IEA DSM Task 16 discussion paper: *Simplified measurement & verification + quality assurance instruments for energy, water and CO_2 savings. Methodologies and examples. Including examples and national perspectives of Task 16 experts*
- First draft for a *Taxonomy paper on Energy Services* for internal discussion
- Contributions to IEA DSM Spotlight and other shorter formats

4. Outreach

Please refer to previous sections for an overview on outreach activities. Two highlights are:

- The ESCO Committee of China Energy Conservation Association (EMCA), who has around 5,000 ESCos as members, has approached Energetic Solutions in order to provide

training on investment-grade calculation for bankable ESCo projects in cooperation with Chinese finance institutions. The meeting took place in Feburary 2015 in Beijing. This cooperation could also serve as a seed for a possible Chinese further engagement with IEA DSM.

– Also the continued cooperation with Linköping University has potential for mutual benefit and is a good opportunity to get Task 16 results into academia.

5. Ideas for new work

Please refer to proposal for Task 16 extension (Phase IV) in separate section of last PMD.

In addition, a further possible topic for Phase IV is to look into crowd-financing to bridge the mezzanine financing gap of EE and RES investments

6. Finance

An overview of the budget situation (total budget, cumulative spending and remaining budget) is as displayed in the following table:

(Budget and cost accumulation by item in EUR excl. VAT as of January 2015)

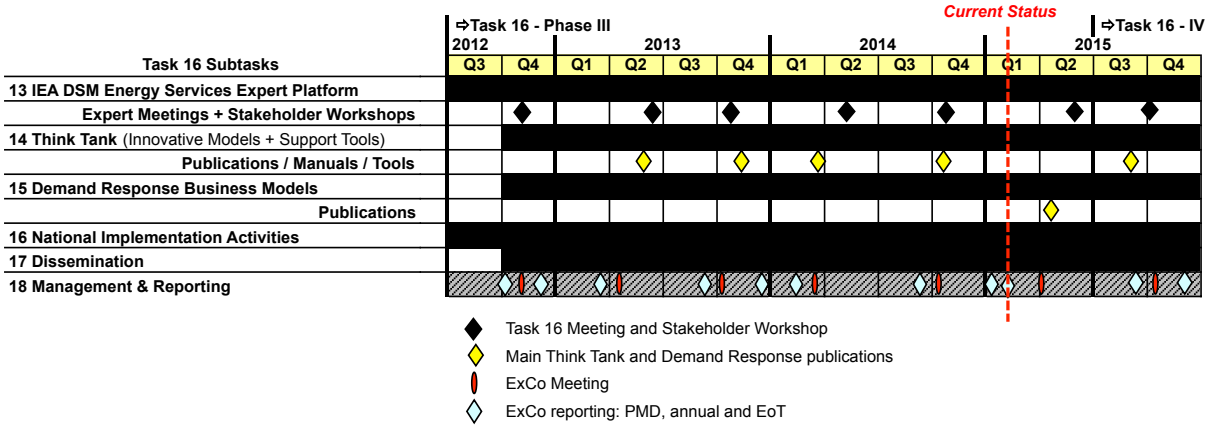
Subtask unit	**Total budget** EUR	**Cumulative spending** EUR	**% spent** %	**Remaining** EUR
13 Energy Services Expert Platform	**36.000**	**29.200**	**81%**	**6.800**
14 Energy Services Think Tank	**87.000**	**73.000**	**84%**	**14.000**
15 Demand Response ES Business Plans	**27.200**	**21.200**	**78%**	**6.000**
16 Coaching of National Implementation Activities	**12.800**	**11.200**	**88%**	**1.600**
17 Dissemination (Internat. + Nat.)	**13.000**	**10.500**	**81%**	**2.500**
18 Management & Reporting	**42.000**	**34.400**	**82%**	**7.600**
Subtotals	**218.000**	**179.500**	**82%**	**38.500**
Travel costs	**28.000**	**23.200**	**83%**	**4.800**
Printing&other	**9.000**	**8.200**	**91%**	**800**
Totals	**255.000**	**210.900**	**83%**	**44.100**

The spending of last reporting period was 41,300 EUR adding to total expenditure of 210,900 EUR, which equals 83 % of the total budget.

The income during last reporting period was 45,000 EUR (against 45,000 EUR billed). This adds to a total realized income of 209.985 EUR against a total budget of 255,000 EUR.

7. Activity Time Schedule

Task 16 - Phase III+IV Timetable (as of January 2015)



Time wise we have spent 31 months out of the 36-month project duration.
All scheduled events and reporting targets have been met.

8. Matters for the ExCo

Recommend the ExCo to approve the Task Status Update Report

9. Participating countries

Austria (since 2014), Belgium, Korea, The Nethelands, Sweden and Switzerland (in alphabetical order).

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TASK 25: BUSINESS MODELS FOR A MORE EFFECTIVE MARKET UPTAKE OF EE ENERGY SERVICES

1. Summary

This task will focus on identifying existing business models and customer approaches providing EE and DSM services to SMEs and residential communities, analysing promising effective business models and services, identifying and supporting the creation of national energy ecosystems in which these business models can succeed, provide guidelines to remove barriers and solve problems, and finally working together closely with both national suppliers and clients of business models. The longer term aim of this Task is to contribute to the growth of the supply and demand market for energy efficiency and DSM amongst SMEs and communities in participating countries.

2. Objectives for the last six months

This Task started November 1st 2014..

Subtask 0 : Pre-scoping – Progress towards Subtask objectives

The focus of this task was on making a first inventory of issues of common interest regarding business models and Service Value propositions on Energy efficiency. The main objective of this subtask was to map valuable knowledge, identify country specifics and general objectives.

Progress towards Subtask objectives

- O1: Writing work plan, in close cooperation with team (DuneWorks, Ideate, TU/e) and interested countries: in finalising stage, final work plan available.
- O2: Performing a quick scan of country specifics (relevant policy and regulation, research, business models. energy targets etc). Completed and integrated in work plan.
- O3: Attendance (virtual) of ExCo meeting in 2014: completed.

Subtask 1 – Progress towards Subtask objectives

This subtask is dealing with all management issues.

Progress towards Subtask objectives

- 1.1 Overall project coordination and management, including contact relationship management: ongoing
- 1.2 Attendance of ExCo meetings, conferences and reporting to IEA DSM ExCo: ongoing
- 1.3 Set-up Task Advisory Board (AB) of stakeholders (ExCo, IEA, intermediaries from research, industry, government, community sectors): ongoing

Subtask 2 – Identify proven and potential business models for energy services – Progress towards Subtask objectives

There are many energy service business models “out there” and often they are closely linked to existing market structures and policies. In other words, business models are often country and context specific. We will start with an inventory of different existing business models, both in the participating countries and also including global examples of successful business models. In the different participating countries we will analyse what business models exist, and what frameworks (market and policy) accompany them.

Progress towards Subtask objectives

1. Identifying country specific suppliers, clients, and their stakeholder networks and trying to establish national advisory expert networks to continue working with throughout the task: ongoing, first contacts are being established in participating countries, expert lists are being set up, amongst others through the longlist being filled with propositions and business models.
2. Narrowing down the focus of both services, target groups and typology of business models in close cooperation with national experts and other relevant stakeholders: initiated and translated into what information to collect in longlist, next narrowing down will take place during first expert workshop March 9-10th 2015. : Ongoing and to be discussed during workshop March 10th, and through literature review being conducted.
3. Clarifying how the different parameters of success of business models and services will relate to each other in the analysis – economic profitability, scale of impact and real savings, business creation, growth rate, synergies with other values, adoption rate etc. ongoing and to be discussed during workshop March 10th, and through literature review being conducted.
4. Developing a task specific typology or categorisation of business models and services for EE. Ongoing and to be discussed during workshop March 10th, and through literature review being conducted.
5. Developing an overview of existing energy service business models in the participating countries and their frameworks/ecosystems and how they meet and incorporate client needs. Finished Mid-March
6. Reviewing global existing business models and their frameworks/ecosystems with a clear focus on quantifying and qualifying effectiveness (e.g. amount of customers reached, market share, savings aimed for, other outcomes, ROI). Finished Mid-March

Subtask 3

Not yet started

Subtask 4

Not yet started

Experts meetings/seminars/conferences held in past six months

Experts meetings
January 8th 2015 Online webinar kick off Task 25
March 10th 2015 Eindhoven Netherlands, Subtask 2

Seminars/Conferences

Date	**Place**	**Partci pants**	**Type of meeting**	Govern-ment	Industry	Academic
10-06-2014	Brussels-Belgium	mixed	Energy Demand-Side Management in Belgium in the context of the EU Energy Efficiency Directive and beyond: how can IEA DSM help?	16	66	10
08-01-2015	online	National experts	Webinar Kick-off	3	2	1

Reports produced in the past six months

- Factsheet Making a business of Smart Grid Energy Efficiency Services
- Factsheet Task 25

- Spotlight DSM issue 52: An introduction to Task 25
- Spotlight DSM issue march 2015: first results Task 25

3. Objectives for the next six months

Subtask 1 – Task management

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

Subtask 2 – Identify proven and potential business models for energy services

1. In-depth comparative analysis of around 4 similar business models in different countries and around 12 per country. Determining patterns, drivers and pitfalls.
2. Identifying key factors that make services (and their vendors) succeed in the participating countries through an in-depth analysis of country specific markets and policies for energy services and their influences on business models;
3. Organising first country workshops with service providers and clients.
4. Creating a draft report with all the national examples, the best practices and the analysis including useful tips and tricks etcetera.

Subtask 4 – Expert platform

- Link to existing DSM IA expert platforms and experts and maintain a section for Task 25.

Experts meetings/seminars/conferences planned in the next six months

Planned Experts meetings

Date	Place
March 2015	South Africa Cape Town
April 2015	DUE conference South Africa Cape Town
May 2015	Webinars National experts
June 2015	Informal session ECEEE conference France
September 2015	Workshops national participants

Reports/Publications planned for the next six months

- Literature review user centric design in business models
- Draft Review report subtask 2, focusing on identifying and analysing best practices in business models for energy services in selected countries, worldwide and targeted to sme's and communities.
- Spotlight issue on results of analysis
- National publications in sectoral journals

4. Outreach

We will organise different Skype and webinars, will present at conferences such as the South African DUE and the ECEEE 2015.

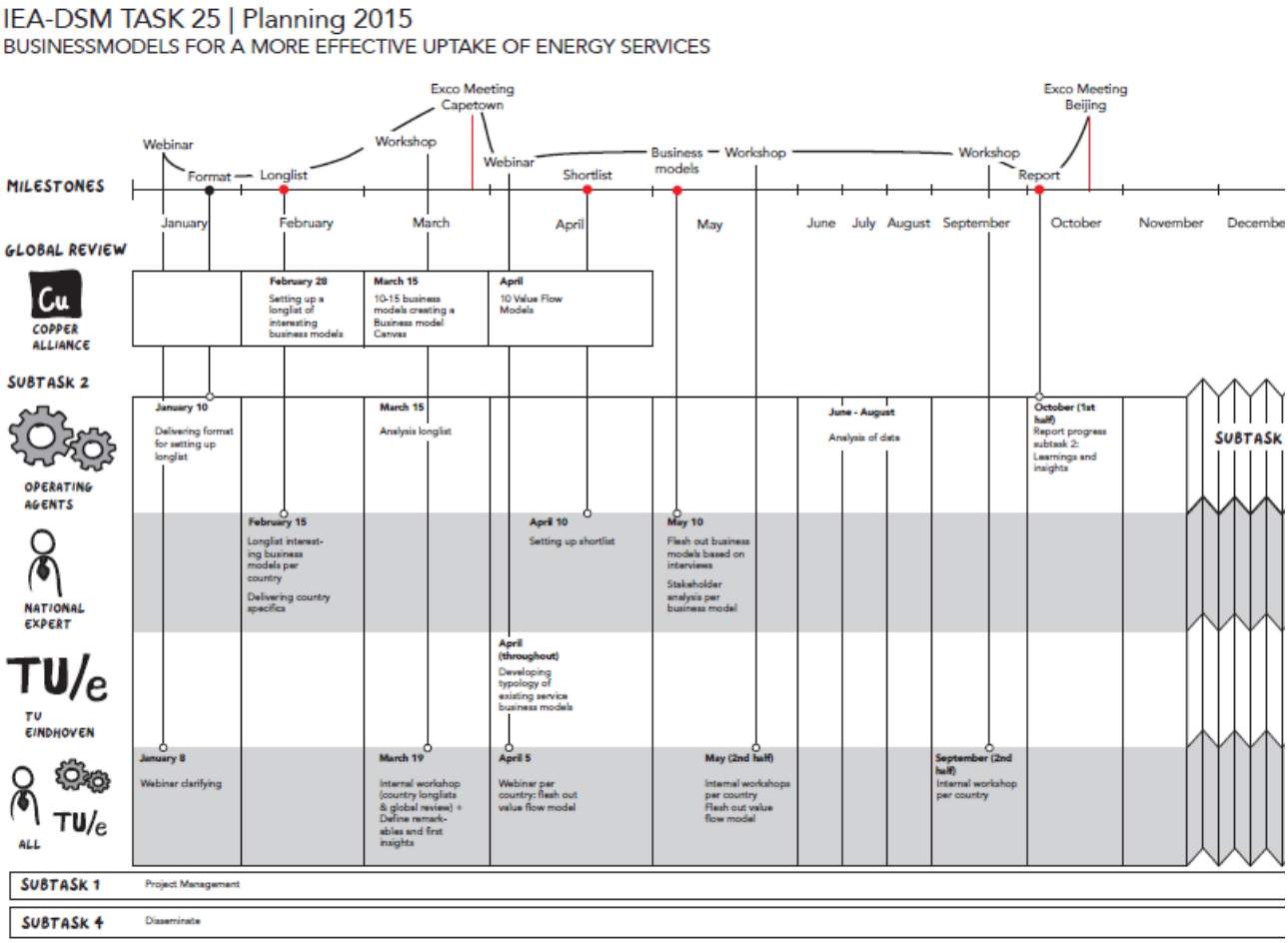
5. Ideas for new work

NA

6. Finance

Sweden and Switzerland have paid the first 50% of their contribution. The European Copper Institute is delivering in-kind. And Austria is awaiting payment from the ministry before being able to pay our invoice. In addition a pre-seed payment of 7500 euro was received from the DSM Common Fund in 2014.

7. Activity Time Schedule



Subtask 1: Management of the Task	Nov-Dec 2014	Jan-Feb	Mar-May	June-July	Aug-Sep	Oct-Nov	Dec-Jan 2016	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Nov
1.1 Set-up of an advisory board (AB)												
1.2 Annual Advisory Board (AB) meetings, ExCo meetings												
1.3 Overall project management and financial and administrative duties												

Subtask 2	Nov-Dec 2014	Jan-Feb	Mar-May	June-July	Aug-Sep	Oct-Nov	Dec-Jan 2016	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Nov
2.1 Identifying relevant stakeholders and establishing national advisory expert networks												
2.2 Narrowing down the focus												

2.3 Clarifying parameters of successful business models and services												
2.4 Developing a typology of existing energy service business models												
2.5 Identifying existing business models and frameworks in participating countries												
2.6 reviewing global business models and services and frameworks												
2.7 In-depth comparative analysis												
2.8 Identifying key factors on national level												
2.9 organising regular workshops												
2.10 reporting results												
Subtask 3	Nov-Dec 2014	Jan-Feb	Mar-May	June-July	Aug-Sep	Oct-Nov	Dec-Jan 2016	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Nov
3.1 Developing potentially effective business models/services for each country												
3.2 creating policy guidelines/ roadmaps for policy makers and stakeholders												
3.3 contributing to setting-up piloting activities												
Subtask 4	Nov-Dec 2014	Jan-Feb	Mar-May	June-July	Aug-Sep	Oct-Nov	Dec-Jan 2016	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Nov
4.1 Design of a Stakeholder Engagement Plan												
4.2 Dissemination to academic journals, participation in conferences, creation of outreach material												
4.3 Connection to and utilisation of IEA expert platforms												

8. Matters for the ExCo

Recommend the ExCo to approve the Task Status Update Report.

9. Participating Countries

1. *Switzerland*
2. *European Copper Institute*
3. *Austria*
4. *Sweden*

Interested countries

- *Norway*
- *India*
- *Netherlands*
- *UK*

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VISIBILITY COMMITTEE REPORT

Annual Report

The 2014 Annual Report, including a Theme Chapter on "DSM priorities in participating countries" was made available electronically to Executive Committee members, Operating Agents and the EUWP and EEWP by the end of January 2014 and was uploaded to the IEA DSM website. Printed copies will be sent out to the EUWP, EEWP, Executive Committee Members and Operating Agents in March 2015. Executive Committee Members and Operating Agents should ensure that copies are distributed widely to all interested parties.

Issues
Executive Committee members need to suggest a topic for the Theme Chapter of the 2015 Annual Report

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 2014 – February 2015 – 1 486 365
October 2013 – March 2014 – 614 496

Hits per day:
March 2014 - February 2015 – 4072
October 2013 – March 2014 – 4327

Average time on website:
March 2014 - February 2015 – 3 mins 21 seconds
October 2013 – March 2014 – 3 mins 28 seconds

Google Analytics
GA from October 2014 to February 2015 show 5022 sessions (down from 6347 in last half year) with 3386 users (down from 4461) who spent an average of under 3 minutes per session (dropped by 20 seconds) on the website. 65% of them were new visitors and just under 50% of all visitors came from the US (9% from the UK and 7.5% from Germany). These stats are not very good and tracking down (probably due to Christmas break) but may be testament to the look and feel of the site which is currently being upgraded, and the difficulty finding reports and other important information easily.

Downloaded reports for Tasks – see the attachment section.

Website Solstice and Weber Web

Solstice has not proposed any further developments but the Visibility Committee has tendered for an updated website, new logo and more Web 2.0 functionality. This work is currently being finalised by Weber Web (Australia/NZ) and we hope to present the new website and its functionality at the ExCo meeting in Cape Town.

Issues
1. We strongly welcome suggestions for further developments once you have viewed the new website
2. Members should review the website regularly and update their own work/interests, especially once the website has been updated

Spotlight Newsletter

In 2015 four DSM Spotlight newsletters will be published in total.

To date, four newsletters have been published in 2014 and are posted on the DSM website:

- Issue 54/published October 2014
- Issue 55/published December 2014

The next issue will be published in March 2015

- Issue 56/ to be published March 2015
- Issue 57/to be published June 2015
- Issue 58/to be published September 2015
- Issue 59/to be published December 2015

Articles in Issue 54: – October 2014
- Task 24: Storytelling Illustrates How We Are Changing Our Energy Path
- Note from the Chairman: Demand Side Management is Getting Back on Track
- DSM Programme – The Times They Are A-Changin'
- Task 17: DSM Workshop @ Austria's Smart Grids Week
- IEA DSM Publications: Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice. Power Matching City:Power To The People?

Articles in Issue 55 – December, 2014
- Task 20: Branding Energy Efficiency
- Note from the Chairman:
- DSM University: Webinar – Taking Stock – 40 years of Industrial Energy Audits
- Task 23: Smart Grids from a Consumer Perspective
- Task 24: The hard life of ESCo Facilitators – If only the client knew, understood, trusted, cared and engaged…
- Task 16: 3 More Years to Tackle Innovative Energy Services

We are grateful to all the Executive Committee members and Operating Agents who have contributed articles to the Spotlight Newsletters in 2014 and hope they will continue to do so in 2015. In 2015, the Editor looks forward to highlighting not only the Task work, but also DSM work in the Member countries and any other articles of interest that our ExCo or Operating Agents are involved in. The newsletter is currently being reviewed to be shorter and in a more concise, electronic format that incorporates hyperlinks.

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 2014, it is proposed that the same be done in 2015.

Brochure

Comments on the format, style and content of the brochure and the inserts are welcome. The inserts will be updated once the new logo and branding is complete.

Issues

Please provide comments on the new brochure design and its contents at the March 2015 Executive Committee meeting.

Task Flyers

Task flyers for Task 17 and Task 22 need to be updated to reflect results in Phase II of Task 17 and the completion of Task 20, 21, 22, and 23.

Social Media

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

- Facebook (IEA DSM Group) with 142 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;

- LinkedIn (IEA DSM Group) with 37 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.

- Twitter (@IEADSM) with 238 followers and 810 tweets. This is the fastest growing social media platform and has fostered some good engagement, re-tweets and mentions. Sea Rotmann is posting for this group.

- 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 (you can look at the Task 24 channel here: https://www.youtube.com/playlist?list=PLoZ9-YO7tGnoDbnOLmu-cLGC9geztJ0F9. If we start filming some Executive Committee workshops, this would be a great channel to distribute visual information fast.

- Slideshare IEA DSM Programme: only recently launched (Dec 2014) and already highly successful. 142 slideshares, 9 followers and we are in the top 5% most viewed slide shares (total number of views 7636)

- IEA DSM Task 24 Expert Platform - 225+ 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 36 visits per month already, and the average page view for new visitors is 9 minutes 05 seconds. The platform is also linked to a dropbox, a Wiki (www.ieadsmtask24wiki.info) and a Twitter account and includes 137 videos and presentations, 115 photos, 6 blog posts, over a dozen discussions, all events associated with the Task, 3 Subtask Groups and member chat and email functions and all expert's short biographies and interests.

Communications Plan and Dissemination Strategies

The Visibility Committee Chair has drafted a communications plan for the Implementing Agreement and it has been presented to the ExCo in Wellington and Graz in 2014. In it, we 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 should 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

Document M

TASK ZERO – RUNNING THE IMPLEMENTING AGREEMENT

Summary

Task ZERO was presented to the ExCo at the 44th ExCo-meeting in Graz. The ExCo agreed for establishment of the task to administer the common fund and the common tasks and a letter explaining the reasons has been distributed to the delegates (see appendix). The comments received have been in favour for this organisation and for a raise of the fee for participation to 11000 USD per year.

Objectives (reprint from 44th ExCo)

Task Zero is a suggestion to in a formal way create a comprehensive and coherent overview and to ensure that resources are used in the most efficient manner.

The mission of the IEA DSM-Programme is to deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures.
In order to do so we have several tools that we need to maintain but also develop to ensure that results are disseminated in ways that are useful for people in everyday practice.

This concerns our:

- Administration
- Informational tools
- Our networks and in particular the local ones run by ExCo-participants
- Dissemination and the extension with the "DSM-University"

To ensure that the activities are coherent it is proposed to gather all these actions in a context that we call "Task ZERO". A task that is a mandatory for participants and builds on both cost-sharing and task-sharing.

The management of the IEA DSM-Programme requires the following responsibilities to be executed (text deducted from the Strategic work plan delivered to the IEA EUWP and CERT in September 2014).

Administration

Executive Secretary:	Cost-shared	Task-shared
➢ Make and distribute agendas, minutes and other documents of Executive Committee meetings	X	
➢ Prepare decisions and recommendations	X	
➢ Assist the Executive Committee and its Chairmen in carrying out their responsibilities including the running of the Project Preparatory Committee (PPC)	X	
Output and visibility (technical facilities and content)		
➢ Website,	X	(x)
➢ Spotlight newsletter,	X	X
➢ Social media,	X	X
➢ Flyers	X	

Dissemination

	Cost-shared	Task-shared
Improved dissemination by development and running of the DSM University	X	X
Local dissemination and "anchoring" within the areas of the participants and to support them in recruiting the expertise necessary for tasks in which they have decided to participate, but also to gather material of interest for other tasks who need local points of contact for their work (Task-sharing)		X

More stringent work (reprint from 44th ExCo)

The task is lead by the Chair who may delegate responsibilities in particular to the secretary and the vice-chairs and who has the Project Preparatory Committee, PPC, as "steering committee".

To ensure that different activities are coherent the Programme secretary is the coordinator for task ZERO. The co-ordinator gathers the necessary information from those concerned with finctions, "subtasks", as described above in order to produce a work-plan and a budget for the ExCo to decide upon annually.

By treating and dealing with these functions as a Task Zero it will be possible to have a comprehensive and coherent overview and to ensure that resources are used in the most efficient manner.

Finance (reprint from 44th ExCo)

The costs for the administration has developed as follows (USD)

2012		2013		2014		2015
Budget	Performance	Budget	Performance	Budget	Performance	Budget
168,000	162,074	168,000	145,985	144,000	-	144,000

The value of work put into the DSM University is approximately 45,000 USD per year. Part of this is covered by in-kind contributions, part of it is covered within the budget.

The common fund presently, with 16 participants paying 8000 USD each, receives an income of 128,000 USD per year.[3]

The expenses between years fluctuates widely, partly because of fluctuations in exchange rates. The Programme has managed to meet rising costs and rising expectations during its life-time with rationalising the work not the least by making full use of the IT-development. During these years we have also managed to build a common fund that has been touching the limit of 300,000 USD. This has allowed the Programme to facilitate upstart of new tasks from a seed-fund.

It would however be irresponsible to base the budget by use of this fund for running costs. A total income of approximately 190,000 USD per year is required to safely cover all obligations as described. Divided on 17 participants the yearly fee to the common fund would be 11,000 USD per participant.

Matters for the ExCo

The ExCo is invited to finally approve the formal Task ZERO to deal with the common obligations and raise the yearly fee for participation to 11,000 USD.

[3] The fee to the common fund has been 8000 USD per annum since the programme started more than 20 years ago.

APPENDIX: IEA DSM Common Fund – Task ZERO. Running the Implementing Agreement

Running an implementing agreement requires a certain amount of servicing and administration to ensure that meetings are properly planned and documented, that information and reporting is made in the required format for all stakeholders and finally that the results are disseminated to give the desired level of impact from the common work in tasks.. This joined commitment requires financing which has been made from a common fund to which all participants pay an equal amount.

The IEA DSM Implementing Agreement has been active since 1993 and the fee has remained on the same level (8000 USD per participant) to-date. However, the Price index has grown by some 30% over the same time period.

The work required from the common fund has nevertheless been carried out within the limits of the existing fee level for a number of reasons:

- One is that the number of participants has grown and though the number has been fluctuating it peaked some years ago to 23. Today we have 16 (?) participants but expect a few more to join.

- Another reason is that we have managed to be more efficient, mainly due to the fact that we have rationalised our work, making several activities more routine. In addition, we have increasingly made use of IT capability across our services.

- A third reason is that the budget had a contingency margin built-in from the beginning and we have managed to build a general fund of some 200 000 USD. A fund that has enabled us to start up activities with seed-funding but also buffer between years when spending has been uneven.

However, none of the above is sustainable indefinitely and it is now time to raise the fee both to cover the ordinary work but also to catch up with necessary changes to our IT-services (e.g. web and social media) and to enable a more appropriate dissemination of our results through our IEA DSM University.

The way dissemination is handled has changed considerably over time. Participants, and certainly those responsible for the budgets, demand more frequent and tailor made outreach. This presents a considerable opportunity for the IEA DSM Implementing Agreement, and the new fee level will provide the necessary common resources for us to deliver what is required.

MISCELLANEOUS

Attachment A – Action Items from the 44th ExCo meeting

WHO	ACTION	WHEN
Norway	Pay Common Fund invoice for 2013	ASAP
See countries to the right	Pay Common Fund invoice for 2014 Belgium, Norway, New Zealand	ASAP
Rob Kool	Maintain contacts with China (NDRC), Saudi Arabia, South Africa, Kuwait, Thailand, and Efficiency Nova Scotia, Canada, and EBRD	ASAP
Hans Nilsson Hans de Keulenaer	Move forward with the DSM University according to plan – as well as continue to plan/hold webinars the first week of every month	ON GOING
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.	NOT DONE
Hans Nilsson Sea Rotmann	Develop a plan on how the DSM Visibility Committee and the DSM University can collaborate	NOT DONE
Operating Agent	Update a more clear definition in Legal Annex text of their Task	On-going
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	On-going
Anne Bengtson	Keep reminding those who have outstanding payments to the Common Fund	On-going
Operating Agents	Include 1-2 slides in their presentation, highlighting the main findings to date in their respective Task(s).	Present at next ExCo meeting
Hans Nilsson	Further develop Task ZERO and present at next ExCo meeting	Present at next ExCo meeting
Sea Rotmann	Update and finalise the communications plan for the DSM programme.	Present at next ExCo meeting
ExCo members	Review website regularly and suggest further developments	On-going
Sea Rotmann	Prepare and start Phase 2 of Task 24.	January 2014
Jan Bleyl	Prepare Task 16 Phase 4 Work Plan and present to Executive Committee member in Cape Town	To be presented at next ExCo
Ruth Mourik	Start Task 25 on Business Models as soon as outstanding issues raised by Austria, Sweden and Switzerland have been resolved	1 November 2014
Korea	Provide Spotlight Newsletter article on Korea's participation and results in Task 23.	ASAP
ExCo members	Suggest topics for the Spotlight Newsletter and provide input for those articles	ASAP
Pam Murphy	Distribute issues of the DSM Spotlight Newsletter	December '14 March '15
OA's et Al	Deadline for input for Annual Report	23 November
Anne Bengtson Nico Beute BarryBredenkamp	Prepare administrative details for the Forty Fifth Executive Committee Meeting in Cape Town, South Africa	DONE
Hans Nilsson	Letter explaining Task Zero and raised contribution	DONE

Cont. Action Items

Hans Nilsson Hans de Keulenaer	Prepare status report on the development of the DSM University and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Matthias Stifter René Kamphuis	Prepare Task Status report on Task Definition Phase 3 and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Jan Bleyl-Androschin	Prepare a Task Status Report for Task 16 Phase 3 and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Rob Kool	Prepare PPC progress report and send to Anne Bengtson for inclusion in the Pre-meeting Document (PMD)	DONE
Sea Rotmann Ruth Mourik	Prepare Task Status Report Task 24 and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Sea Rotmann Ruth Mourik	Prepare Task Status Report for Task 24 extension and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Ruth Mourik	Prepare Task Status Report for Task 25 and send to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	DONE
Paul Atkins Anne Bengtson	Prepare Financial report and send to Anne Bengtson for inclusion in the Pre-Meeting Document	DONE
Sea Rotmann	Prepare Visibility Committee Report for inclusion in the Pre-Meeting Document	DONE
Operating Agents	Prepare Task Information Plans and include in each Task Status Report.	On-going
Solstice Weber Web	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 Forty Fourth ExCo meeting to the Executive Committee members and Operating Agents.	DONE

Attachment B – Participation Table

Participant	16 ext.	17 ext.	24 ext.		25
	Competitive Energy Services Phase III – Energy Efficiency and Demand Response Services	**Integration of DSM, Distributed generation, Phase 3**	**Closing the Loop: DSM From Theory to practice**	**DSM University**	**Business Models for the market uptake of EE energy services.**
Australia			◆		
Austria	X	X	X	◆	X
Belgium	X	◆	X		
Finland		◆		◆	
India		◆			◆
Italy		◆	X		
Korea	X			◆	
Netherlands	X	X	X	◆	◆
New Zealand			X		◆
Norway			X	◆	
Saudi Arabia			◆	◆	
South Africa			◆		
Thailand					
Spain					
Sweden	X	X	X	◆	
Switzerland	X	X	X		X
United Kingdom,			◆	◆	◆
United States		X			
RAP *			◆	◆	
European Copper Institute*		X		◆	X
Serbia		◆			
Germany		◆			
OPERATING AGENT (OA)	**Jan W. Bleyl-Androschin**	**Matthias Stifter & René Kamphuis**	**Sea Rotmann – Ruth Mourik**	**Hans Nilsson Hans de Keulenaer**	**Ruth Mourik**

X = participant
◆ = interested

Attachment C – Glossary

Abbreviation	Explanation
APEC	Asia-Pacific Economic Cooperation
BCG	Buildings Co-ordination Group (consists of 7 Implementing Agreements)
CERT	Committee on Energy Research and Technology in the IEA
CIGRE	International Council on Large Electric Systems
CTI	Implementing Agreement on Climate Technology Initiative
DHC	Implementing Agreement on District Heating and Cooling
DSM	Implementing Agreement on Demand-Side Management
EC	European Commission
ECEEE	European Council for an Energy Efficient Economy
ECES	Implementing Agreement on Energy Storage
ECI	European Copper Institute
EEWP	Energy Efficiency Working Party in the IEA
ENARD	Electricity Networks Analysis, Research & Development
EOT	End of Term
ESD	Energy Services Directive in the European Commission
ETE	Energy Technology Essentials (3-4 page briefs)
ETSO	European Transmission System Operators
EU	European Union
EUWP	End-Use Working Party in the IEA
FBF	Implementing Agreement on Future Buildings Forum
GHG	Green House Gas
HPC	Implementing Agreement on Heat Pump Centre
ICLEI	International Council for Local Environmental Initiatives
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
ISGAN	International Smart Grid Action Network (ISGAN)
JFS	Japan Facility Solutions (Japanese Sponsors participating in Task XVI)
KIER	Korea Institute of Energy Research

NEET	New and Emerging Environmental Technologies (IEA networking project - Gleneagles G8)
NRDC	National Development and Reform Commission, China
PMD	Pre-Meeting Document
PVPS	Implementing Agreement on Photovoltaic Power Systems
REEEP	Renewable Energy and Energy Efficiency Partnership
SANERI	South African National Energy Research Institute
SHC	Implementing Agreement on Solar Heating and Cooling
TSO	Transmission System Operators

Attachment D – Executive Committee Members List

*Participants at the Executive Committee meeting 15 - 17 October, 2014, Graz, Austria

Chairman
Mr. Rob Kool*
Netherlands Enterprise Agency
Croeselaan 15
P.O. Box 8242
3521 BJ Utrecht
The Netherlands
Telephone: (31) 886 022 503
Telefax: (31) 886 029 025
Mobile: (31 646 424 071
E-mail: rob.kool@rvo.nl

Vice Chairman
Mr. Andreas K. Enge
ENOVA
Abelsgate 5
N-7030 Trondheim
Telephone: (47) 73 190430
Mobile: (47) 99 790 785
Telefax: (47) 73 19 04 31
E-mail: andreas.k.enge@enova.no

Vice Chairman
Mr. Paul Atkins*
Chief Executive
National Energy Research
Institute (NERI)
Level 8, 44 The Terrace
Wellington 6140
Mobile: (64) 21 430 193
telefax: (64) 4 499 5330
E-mail: paul@neri.org.nz
www.neri.org.nz

Chairman of the Visibility Committee
Dr. Sea Rotmann*
SEA-Sustainable Energy Advice
43 Moa Point Road
6022 Wellington
Telephone: (64) 4380 7374
Mobile: (64) 212 469 438
E-mail: drsea@orcon.net.nz
Twitter: @DrSeaRotmann
Facebook: DrSea Rotmann
LinkedIn: Dr Sea Rotmann

AUSTRIA
Mr. Boris Papousek*
Grazer Energieagentur GES.m.b.H
Kaiserfeldgasse 13/1
A-8010 Graz
Telephone: (43) 316 811 848-0
Telefax: (43) 316 811 848-9
E-mail: papousek@grazer-ea.at

BELGIUM

Mr. Francois Brasseur
Attaché
Direction Générale Energie –
Relations Extérieures
SPF Economie
Boulevard du Roi Albert II, 16, 1000 Bruxelles
Telephone: (32) (0) 22 779 852
Telefax: (32) (0) 22 775 202
E-mail: francois.brasseur@economie.fgov.be

FINLAND

Mr. Jussi Mäkelä
TEKES
P.O. Box 69
FI-00100 Helsinki
E-mail: jussi.makela@tekes.fi

Mr. Pekka Koponen*
VTT Technical Research Center Finland
PL 1000
FI-02044 Espoo
Telephone: (358) 20 722 6755
Mobile: (358) 40 720 7813
E-mail: pekka.koponen@vtt.fi

INDIA

Dr. Ajay Mathur
Director General
Bureau of Energy Efficiency
Government of India, Ministry of Power
4th Floor, Sewa Bhawan
R.K. Puram, Sector 4, New Delhi – 110066
Telephone: (91) 11 2617 8316
Telefax: (91) 11 2617 8328
E-mail: dg-bee@nic.in

Ms. Pravatanalini Samal
Assistant Energy Economist
Bureau of Energy Efficiency
Government of India, Ministry of Power
4th Floor, Sewa Bhawan
R.K. Puram, Sector 4, New Delhi – 110066
Telephone: (91) 11 2617 9699
Telefax: (91) 11 2617 8352
E-mail: psamal@beenet.in

ITALY

Mr. Walter Bruno Grattieri
Ricerca sul Sistema Energetico - RSE S.p.A
Power System Development Department
Via Rubattino, 54, 20134 Milano
Telephone: (39) 02 3992 5714
Telefax: (39) 02 3992 5597
E-mail Walter.Grattieri@rse-web.it

Dr. Antonio Capozza
Ricerca sul Sistema Energetico - RSE S.p.A
Power System Development Department
Via Rubattino, 54
20134 Milano
Telephone: (39) 02 3992 5016
Telefax: (39) 02 3992 5597
E-mail antonio.capozza@rse-web.it

Mr. Simone Maggiore

R.S.E. (Ricerca sul Sistema
Energetico S.p.A)
Via Rubattino, 54
201 34 Milano
Italy
Telephone: (39) 2 3992 5238
E-mail: Simone.Maggiore@rse-web.it

CONTACT FROM JAPAN
Mr. Tetsuya Maekawa
Head, Energy Solution Centre
Tokyo Electric Power Company
1-1-3, Uchisaiwai-cho, Chiyoda-ku
Tokyo 100-8560 Japan
Telephone:
E-mail: maekawatet@hotmail.com

REPUBLIC OF KOREA
Mr. Sang-Kug Im*
Korea Energy Management
Corporation (KEMCO)
388 Poeun-Daero. Suji-Gu,
Yongin-Si,
Gyeonggi-Do
448-994, Republic of Korea
Telephone: (82) 31 260 4184
Telefax: (82) 31 260 4189
E-mail: skimmr@kemco.or.kr

Ms. Hyojin Lim*
Korea Energy Management
Corporation (KEMCO)
388 Poeun-Daero. Suji-Gu,
Yongin-Si,
Gyeonggi-Do
448-994, Republic of Korea
Telephone: (82) 31 260 4184
Telefax: (82) 31 260 4189
E-mail: hjlim@kemco.or.kr

NETHERLANDS

Mr. Rob Kool*
Netherlands Enterprise Agency
Croeselaan 15
P.O. Box 8242
3521 BJ Utrecht
The Netherlands
Telephone: (31) 886 022 503
Telefax: (31) 886 029 025
Mobile: (31 646 424 071
E-mail: rob.kool@rvo.nl

Mr. Harry Vreuls*
Netherlands Enterprise Agency
Swentiboldstraat 21
P.O. Box 17
6130 AA Sittard
Telephone: (31) 886 022 258
Telefax: (31) 886 029 021
Mobile: (31) 630 608163
E-mail: harry.vreuls@rvo.nl

NEW ZEALAND

Mr. Paul Atkins*
Chief Executive
National Energy Research
Institute (NERI)
Level 8, 44 The Terrace
Wellington 6140
Mobile: (64) 21 430 193
telefax: (64) 4 499 5330

E-mail: paul@neri.org.nz
www.neri.org.nz

Dr. Sea Rotmann*
SEA-Sustainable Energy Advice
43 Moa Point Road
6022 Wellington
Telephone: (64) 4380 7374
Mobile: (64) 212 469 438
E-mail: drsea@orcon.net.nz
Twitter: @DrSeaRotmann
Facebook: DrSea Rotmann
LinkedIn: Dr Sea Rotmann

NORWAY

Mr. Andreas K. Enge
ENOVA SF
Abelsgate 5
N-7030 Trondheim
Telephone: (47) 73 190430
Mobile: (47) 99 790 785
Telefax: (47) 73 19 04 31
E-mail: andreas.k.enge@enova.no

Mr. Even Bjørnstad*
Enova SF
Abelsgate 5
N-7030 Trondheim
Telephone: (47) 73 19 04 75
Mobile: (47) 99 638218
Telefax: (47) 73 19 04 31
E-mail: even.bjornstad@enova.no

SPAIN

Ms. Susana Bañares
RED Eléctrica de España
Plaza del Conde de los Gaitanes, 177
La Moraleja 28109 Alcobendas, Madrid
Telephone: (34) 91 659 99 35
Telefax: (34) 91 650 4542
E-mail: sbanares@ree.es

SWEDEN

Ms. Maria Alm*
Energimyndigheten (STEM)
Box 310
S-631 04 Eskilstuna
Telephone: (46) 16 544 2000
Telefax: (46) 16 544 2099
E-mail: maria.alm@energimyndigheten.se

Ms. Svetlana Gross
Energimyndigheten (STEM)
Box 310
S-631 04 Eskilstuna
Telephone: (46) 16 544 2000
Telefax: (46) 16 544 2099
E-mail: svetlana.gross@energimyndigheten.se

SWITZERLAND

Mr. Markus Bareit*
Departement für Umwelt, Verkehr,
Energie und Kommunikation
Swiss Federal Office of Energy
Mühlestrasse 4,
3003 Bern
Telephone:
Telefax:
E-mail: markus.bareit@bfe.admin.ch
www.bfe.admin.ch

Mr. Klaus Riva
Swiss Federal Office of Energy
3003 Bern
Telephone: (41) 31 322 5706
E-mail: Klaus.riva@bfe.admin.ch

UNITED KINGDOM

Mr. Tom Bastin
Energy Strategy & International Unit
Department of Energy and Climate Change
3 Whitehall Place
London SW1A ZHH
Telephone: (44) 300 0685 463
E-mail: tom.bastin@decc.gsi.gov.uk

UNITED STATES

Mr. Larry Mansueti
Director, State and Regional Assistance
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy
1000 Independence Ave. SW,
Washington D.C. 20585
Telephone: (1) 202 586 2588
Telefax: (1) 202 586 5860
E-mail: lawrence.mansueti@hq.doe.gov

SPONSORS

Regulatory Assistance Project (RAP)

Mr. Richard Cowart*
Regulatory Assistance Project (RAP)
Rue de la Science 23
1050 Brussels, Belgium
Telephone: (1) 802 272 8550
Mobile: (32) 2 789 3010
E-mail: rcowart@raponline.org

Mr. Frederick Weston
Regulatory Assistance Project (RAP)
The Energy Foundation – Bejing Office
CITIC Building Room 2504
No 19 Jianguomenwai Dajie
1000004 China
China Mobile: +136 9332 6094
E-mail: rweston@raponline.org

European Copper Institute

Mr. Hans De Keulenaer
European Copper Institute
Avenue de Tervueren 168 B10
1150 Brussels, Belgium
Telephone: (32) 2 777 7084
Telefax: (32) 2 777 7079
E-mail: hans.dekeulenaer@copperalliance.eu
www.eurocopper.org

Mr. Philip Zhang
International Copper
Association
Beijing Office
Room 2605-2608 Tower A Bldng 1
Tianzou International Center
No.12 Zhongguancun South Ave
Haidian District, Beijing, 100081
Telephone: (86) 10 6804 2450 203
Telefax: (86) 10 6802 0990
Mobile: (86) 139 1008 2556
E-mail: philip.zhang@copperalliance.asia
www.copperalliance.asia

ADVISOR TO EXCO

Mr. Hans Nilsson*
Grubbensringen 11
112 69 Stockholm
Sweden
Telephone: (46) 8 650 6733
E-mail: nosslinh@telia.com

WEBMASTER

Mr. Fergus Rolfe
Solstice Associates Limited
1 Market Place
Hadleigh, Suffolk
IP7 5DL
United Kingdom
Telephone: (44) 1473 820040
E-mail: fergus@solstice.eu.com
E-mail: dsmwebmaster@solstice.eu.com

Mr. Matt Alexander
Solstice Associates Limited
1 Market Place
Hadleigh, Suffolk, IP7 5DL
United Kingdom
E-mail: matt.alexander@solstice.eu.com

Mr. Dave Cattermole
Solstice Associates Limited
1 Market Place, Hadleigh
Suffolk,IP7 5DL
United Kingdom

NEW WEB-DEVELOPER

Mr. Karl Weber
Weber Web Ltd (WeberWeb)
40 Newman Avenue
Camp Hill
Brisbane QLD
Australia 4152
Mobile: (64) 22 693 5134
E-mail: karl.weber@gmail.com

IEA SECRETARIAT

Desk Officer:
Tyler Bryant
International Energy Agency
Office of Energy Conservation
and Efficiency Division
9 rue de la Fédération
75739 Paris Cedex 15
Telephone: (33) 1 40 57 67 29
Telefax: (33) 1 40 57 67 59
E-mail: tyler.bryant@iea.org

SPOTLIGHT/NEWSLETTER EDITOR

Ms. Pamela Murphy
KM Group
9131 S.Lake Shore Dr.
Cedar, MI 49621
United States
Telephone: (1) 231 228 7016
Telefax: (1) 231 228 7016
E-mail: pmurphy@kmgrp.net

CHAIRMAN and EXECUTIVE COMMITTEE SECRETARY

Ms. Anne Bengtson*
Liljeholmstorget 18-4tr, 117 61 Stockholm
Sweden
Telephone: (46) 8 510 50830
Telefax: (46) 8 510 50830
E-mail: anne.bengtson@telia.com

OTHER ATTENDEES/OBSERVERS

Ms Asari Efiong
Senior Manager, product Development
Energy Efficiency and Climate Change
European Bank for Reconstruction and Development (EBRD)
One Exchange Square
EC2A 2JN London
United Kingdom

Telephone: (44) 20 7338 6405
Telefax: (44) 20 7338 6942
Mobile: (44) 7912 717 649
E-mail: efionga@ebrd.com

Attachment E – Operating Agents List

Task 16 – Energy Performance Contracting – Competitive Energy Services

Operating Agent

Mr. Jan W. Bleyl-Androschin*
Energetic Solutions
Lendkai 29
A-8020 Graz, Austria
Phone: +43 650 799 2820
E-mail: EnergeticSolutions@email.de

Frankfurterstr. 12
D-76344 Leopoldshafen, Germany

Task 17 – Integration of Demand Side Management, Distirbuted Generation, Renewable Energy Sources and Energy Storages

Operating Agent(s)

Mr. Matthias Stifter
AIT Austrian Institute of
Technology GmbH
Energy Department
- Complex energy systems
Giefinggasse 2
1210 Vienna, Austria
Telephone: (43) 505 50 6673
Telefax: (43) 505 50 6613
Mobile: (43) 664 815 7944
E-mail: matthias.stifter@ait.ac.at
www.ait.ac.at

Mr. René Kamphuis
TNO, Netherlands Organisation for
Applied Scientific Research/Energy
Efficiency and ICT Program
P.O. Box 1416
9701 BK Groningen
The Netherlands
Telephone: (31) 621 134 424
E-mail: rene.kamphuis@tno.nl
www.tno.nl

Task 24 – Closing the loop: Behaviour change in DSM – from theory to policies and practice

Operating Agent

Dr. Sea Rotmann
SEA - Sust
43 Moa Point Road
6022 Wellington
New Zealand
Telephone: (64) 4 380 7374
Mobile: (64) 212 469 438
E-mail: drsea@orcon.net.nz
Twitter: @DrSeaRotmann
Facebook: DrSea Rotmann
LinkedIn: Dr Sea Rotmann

Co-operating Agent

Dr. Ruth Mourik
Eschweilerhof 57
5625 NN Eindhoven
The Netherlands
Telephone: +31 40 2425683
Mobile: +31 6 25075760
E-mail: info@duneworks.nl

Task 25 – Business models for Energy Services
Operating Agent

Dr. Ruth Mourik*
Eschweilerhof 57
5625 NN Eindhoven
The Netherlands
Telephone: +31 40 2425683
Mobile: +31 6 25075760
E-mail: info@duneworks.nl

Attachment F – Detailed Statistics - Downloaded Task Reports DSM website

March 2014 - February 19th 2015		
Task	**Document**	**Downloads**
Task 17 - Integration of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy	Final report - main report Vol 1	3043
Task 17 - Integration of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy	Final report - Annex report Vol 2	1274
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Financing Options for Energy-Contracting Projects - Comparison and Evaluation (T16 discussion paper)	760
Task 15 - Network Driven DSM	Research Report No 3: Incorporation of DSM Measures into Network Planning. Second edition	544
Task 15 - Network Driven DSM	Research Report No 5: The Role of Advanced Metering and Load	515
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM	Evaluation Guidebook Volume 1	459
Task 15 - Network Driven DSM	Research Report No 1: Worldwide Survey of Network-driven	340
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency	Research Report No 1: Existing Mechanisms for Promoting DSM	337
Task 24 - Closing the Loop - Behaviour Change in DSM, From	Task 24 paper for eceee summer study 2013	331
Task 21 - Standardisation of Energy Savings Calculations	Country Report Spain Final - September 2012	326
Task 1 Subtask 8 - International Database on Demand-Side	INDEEP Analysis Report 2004	306
Task 18 - Demand Side Management and Climate Change	Research Report No 1: Interactions between Demand Side	284
Task 8 - Demand-Side Bidding in a Competitive Electricity	Task 8: Demand Side Bidding Brochure	283
Task 15 - Network Driven DSM	Research Report No 4: Evaluation and Acquisition of Network-driven	278
Task 15 - Network Driven DSM	Research Report No 2: Assessment and Development of Network-	277
Task 19 Micro Demand Response and Energy Saving	Task XIX: Evaluating the Business Case for Micro Demand	247
Task 11 - Time of Use Pricing and Energy Use for Demand	Task XI: Final Report	242
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Comprehensive Refurbishment of Buildings through Energy Performance Contracting (T16 discussion paper)	240
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	TASK XI: Subtask 1 Report	220
Task 15 - Network Driven DSM	Task XV Flyer	220
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Desarrollo de Mecanismos para Fomentar la Gestión de la Demanda y la Eficiencia Energética en Sectores Eléctricos en	214
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	How much Energy Efficiency can Energy Contracting deliver to the Residential Sector in Germany? (ECEEE'09 + IAEE'09 paper)	212
Task 21 - Standardisation of Energy Savings Calculations	Report on Energy Savings Calculation Final Version	212
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	Task 24: Subtask 1 Analysis - Final Report	212
Task 9 - The Role of Municipalities in a Liberalised System	TASK IX: Graz Report 1 Final	201
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Task XVI Flyer "Competitive Energy Services (Energy Contracting, ESCo Services)"	200
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	The little monster - Subtask 1 case study storybook	199
Task 10 - Performance Contracting	TASK X: Country Report Netherlands	197
Task 3 - Co-operative Procurement of Innovative Technologies for Demand-Side Management	Appendices to Task III Final Management Report, March 2000	192
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Opportunity Cost Tool (short presentation)	185
Task 9 - The Role of Municipalities in a Liberalised System	TASK IX: Graz Report 2 Final	176
Task 22 - Energy Efficiency Portfolio Standards	Best practices in designing and implementing energy efficiency	175
Task 7 - International Collaboration on Market Transformation	Branding Energy Efficiency - Summary	175
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Research Report No 3: Developing Mechanisms for Promoting Demand-Side Management and Energy Efficiency in Changing	174
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Task 21 - Standardisation of Energy Savings Calculations	Country Report Netherlands Final - July 2012	172
Task 21 - Standardisation of Energy Savings Calculations	Country Report France Final - August 2012	171
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Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Conservation First! The New Integrated Energy-Contracting Model Combine Energy Efficiency and Renewable Supply in Large	167
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	What is Energy-Contracting (ESCo services)? A Taxonomy Paper_(T16 discussion paper)	156
Task 13 - Demand Response Resources	Task XIII - Demand Response Resources - Final Task Report	155
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	Positioning Paper for Oxford Workshop	153
Task 5 - Investigation of Techniques for Implementation of Demand-Side Management Technology in the Market Place	TASK V: Report no 3: Questionnaire Analysis of Programmes Developed in Annex V	153
Task 21 - Standardisation of Energy Savings Calculations	Country Report Korea Final - October 2012	150
Task 10 - Performance Contracting	TASK X: Country Report United States	146
Task 10 - Performance Contracting	TASK X: Final Management Report	145

Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	Subtask 2 Analysis - The Netherlands	145
Task 9 - The Role of Municipalities in a Liberalised System	TASK IX: Newsletter 3 - MEELS	144
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes for Kyoto's GHG Targets	Evaluation Guidebook Volume 2	143
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	ESCo Facilitators 5 page summary	143
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	TASK XI: Subtask 2 Report	142
Task 10 - Performance Contracting	TASK X: Appendices to Summary Report	140
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Research Report No 2: Public Policy Implications of Mechanisms for Promoting Energy Efficiency and Load Management in Changing Electricity Businesses	139
Task 5 - Investigation of Techniques for Implementation of Demand-Side Management Technology in the Market Place	Task V: Report no 2 (2nd edition) Marketing Analysis of DSM Programmes	137
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	Task 24 paper for ELCAS, Greece 2013	136
Task 18 - Demand Side Management and Climate Change	Task XVIII Flyer	135
Task 5 - Investigation of Techniques for Implementation of Demand-Side Management Technology in the Market Place	Task V: Report no 2 (2nd edition) Marketing Analysis of DSM Programmes. - Spanish	135
Task 7 - International Collaboration on Market Transformation	Branding Energy Efficiency - MT7 Market Report	135
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Task VI Flyer	134
Task 17 - Integration of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy Sources	Summary and conclusions - Subtask 9 Report	131
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	Task XI: Subtask 4 Report	130
Task 3 - Co-operative Procurement of Innovative Technologies for Demand-Side Management	Task III Final Management Report - Co-operative Procurement of Innovative Technologies, May 2000	130
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Energy Policy paper: Public policy analysis of energy efficiency and load management in changing electricity businesses	129
Task 18 - Demand Side Management and Climate Change	Working Paper No 2: Preliminary Study of Emissions Trading Schemes in the United Kingdom and Australia	128
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Task 18 - Demand Side Management and Climate Change	Working Paper No 3: Time of Use Pricing and Emissions Mitigation	127
Task 17 - Integration of Demand Side Management, Energy	Task XVII Flyer	126
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	Task 8 - A Practical Guide to Demand-Side Bidding	126
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Task 10 - Performance Contracting	TASK X: Country Report Finland	125
Task 18 - Demand Side Management and Climate Change	Research Report No 2: Principles for Assessing Emissions Reductions from DSM Measures	125
Task 2 - Communications Technologies for Demand-Side	International Standards Activity in Customer/Utility Communications	125
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	Implicaciones Políticas de los Mecanismos para Promocionar la Eficiencia Energética y la Gestión de la Carga en Sectores	125
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	Task XI: Subtask 5 Report	124
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	TASK 8: Stage 1 Report - Demand Side Bidding in a Competitive Electricity Market	124
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	Task 8 - Market participants' views towards and experiences with Demand Side Bidding	123
Task 21 - Standardisation of Energy Savings Calculations	Country Report USA Final - September 2012	120
Task 10 - Performance Contracting	TASK X: Country Report Japan	118
Task 9 - The Role of Municipalities in a Liberalised System	TASK IX: Summary of reports	118
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	Comprehensive Refurbishment with Energy Contracting (ECEEE '07 paper)	117
Task 19 Micro Demand Response and Energy Saving	Task XIX: Requirements and Options for Effective Delivery	117
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Statistics have been measured up to and including 19 February

Attachment G – Executive Committee meetings of the IEA DSM Programme

(table excludes the European Union)

Meeting #	Date	Country	Participants	Countries on ExCo
interim	1 –2 April, 1993	Stockholm, Sweden	14	14
1	28 – 29 October, 1993	Kerkrade, Netherlands	13	14
2	24 – 25 March, 1994	Madrid, Spain	12	14
3	13 – 14 October, 1994	Washington D.C., USA	14	15
4	23 – 24 March, 1995	Schaffhausen, Switzerland	15	15
5	19 – 20 October, 1995	Fukuoka, Japan	14	15
6	21 – 22 March, 1996	Paris, France	14	15
7	31 Oct – 1 Nov, 1996	Sydney, Australia	12	15
8	10 – 11 April, 1997	Helsinki, Finland	14	15
9	10 – 13 September, 1997	Oslo, Norway	9	15
10	25 – 27 March, 1998	Seoul, Korea	10	15
11	7 – 9 October, 1998	Chester, United Kingdom	12	15
12	14 – 16 April, 1999	Copenhagen, Denmark	12	17
13	28 – 29 October, 1999	Amsterdam, Netherlands	14	17
15	3 – 6 April, 2000	Ankara, Turkey	12	17
16	12 – 13 October, 2000	Athens, Greece	13	17
17	3 – 4 May, 2001	Eskilstuna, Sweden	12	17
18	3 – 5 October, 2001	Barcelona, Spain	13	17
19	18 – 19 April, 2002	Milan, Italy	15	17
20	3 – 4 October, 2002	Graz, Austria	15	17
21	8 – 10 April, 2003	Canberra, Australia	9	17
22	14 – 15 October, 2003	Paris, France	15	17
23	15-16 April 2004	Trondheim, Norway	16	17
24	13-15 October 2004	Atlanta, United States	13	17
25	20-21 April 2005	Saariselkä, Finland	15	17
26	October 2005	Madrid Spain	14	17
27	April 2006	Copenhagen Denmark	14	17
28	October 2006	Maastricht Netherlands	9	17
29	April 2007	Seoul Korea	10	18
30	11-12 October2007	Brugge Belgium	15	18
31	2-4 April 2008	New Delhi, India	11	19
32	October 2008	Milan Italy	13	19
33	April 2009	Vienna, Austria	11	20
34	September 2009	Chester, UK	11	20
35	April 2010	Paris, France	11	19
36	October 2010	Stockholm, Sweden	9	19
37	April 2011	Washington, USA	8	18
38	2 – 4 November 2011	Jeju Island, Korea	14	18
39	18 - 20 April, 2012	Trondheim-Tromsö, Norway	10	15
40	September 14-16 2012	Espoo, Finland	10	16
41	24 - 26 April, 2013	Utrecht, The Netherlands	11	17
42	16 – 18 October 2013	Lucerne- Rigi, Switzerland	11	17
43	17 – 21 March 2014	Wellington, New Zealand	9	16
44	15-17 October 2014	Graz, Austria	14	16
45	26 – 27 March, 2015	Cape Town, South Africa		

No's of Executive Committee meetings held in each country

Netherlands	4	Australia	2	Japan	1
Austria	3	Denmark	2	Turkey	1
France	3	Italy	2	Cape Town	1
Finland	3	Switzerland	2		
Korea	3	UK	2		
Norway	3	Belgium	1		
Spain	3	Greece	1		
Sweden	3	India	1		
USA	3	NZ	1		

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