

IEA Implementing Agreement Demand-Side Management Technologies and Programmes

# FORTY FOURTH EXECUTIVE COMMITTEE MEETING

PRE-MEETING DOCUMENT (PMD)

15 – 17 October 2014 Graz, Austria



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#### MATTERS FOR THE EXECUTIVE COMMITTEE

#### Project Preparatory Committee (PPC) Report

• Approve the Report

#### **DSM** University

Approve the Status Report

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

- Approval of the Final Task Status Report
- Approval of the Final Management Report

#### Task 20 - Branding of Energy Efficiency

- Approve the Final Management Report
- Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages Phase 3.

• Approve the Task Status Report

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

• Approve the Task Status Update Report.

Please note that we had serious issues getting a final contract and payment from South Africa. It is thus unclear if SA will actually be part of Task 24. If that still is the case, the Task will have to be extended automatically (for SA input mainly) until at least after the ExCo in March 2015 in SA. We will work towards finalising everything else by the end of the year, though very late entry and submissions from Italy, Belgium and Austria and some lack of engagement from some national experts have meant a lot of extra (unpaid) work for the OAs and time delays that are completely out of our hands.

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

• Approve and fund the extension

### Task 16 – Phase 3 – Competitive Energy services – Energy Efficiency and Demand Response Services

• Approve the Task Status Report

#### Task 25 – Business Models for a more effective market uptake of DSM energy services

• Approve the Task Status Report

#### **Programme Visibility**

• Approve the Status Report

#### Task Zero

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

#### Financial Report 2014 and proposed Budget 2015

• Approve the financial report 2014 and the proposed Budget 2015

#### **AGENDA**

#### IEA Demand-Side Management Programme Forty Fourth Executive Committee Meeting

15 – 17 October, 2014, Graz, Austria

Wednesday 15 October 2014

09:00 - 17:00

**WORKSHOP:** IEA Networking Event: Electricity of the Future: Renewables –

Distributed

earlier

Smart Grids – Active Customers.

Venue: Modul, Peter Jordan Straße 78, 1190 Vienna, 9:00 – 17:00

18:30 – 19:30 Operating Agents Meeting (on the train to Southern Styria)

Thursday 16 October 2014 Venue: Weingarten-Hotel HARKAMP, Southern Styria

#### 09:00 - 10:00 **1. GENERAL BUSINESS/WELCOME**

1a. Welcome - Rob Kool

1b. ExCo approval of the Agenda

1c. **ExCo approval** of the Forty Third ExCo meeting Minutes – Wellington, New Zealand

1d. Status of the Implementing Agreement

1e. IEA Relations

- Secretariat news

- Contacts with possible sponsors/new participants

Rob Kool

- IA relations, BCG and ECG, Rob Kool

- Report from the Project Preparatory Committee (PPC)
- Rob Kool
- Report from the workshop *Boris Papousek*
- Operating Agents meeting report *Rob Kool*

#### 2. DSM IA Extension

EUWP/CERT decision for an extension of the DSM IA Rob Kool

10:00 - 10:30 Coffee break

#### 3. NEW WORK

#### DSM UNIVERSITY

10:30 – 11:00 3a. Development of the DSM University - Hans Nilsson

#### 4. FINAL MANAGEMENT REPORTS

11:00 – 12:00 4a. Task 23 - Role of the Demand Side in Delivering Effective

Smart Grids - Task Status Report and Final Management Report,

Linda Hull, EA Technology, United Kingdom

#### 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.
- 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)

12.00 - 13:00	Lunch	
13:00 – 14:00	4b.	Task 20 – Branding of Energy Efficiency, Final Management Report Balawant Joshi, Idam Infrastructure Advisory Pvt Ltd
		5. CURRENT TASKS – LOAD SHAPE CLUSTER
14:00 – 14:30		5a. Task 17 – Integration of DSM with other Distributed Energy Resources – Phase 3 Matthias Stifter & Réne Kamphuis
14:30 – 15:00		5b. Task 24 Closing the loop – Behaviour Change in DSM: From theory to policies and practice. Task Status Report Dr. Sea Rotmann, EECA, New Zealand Dr. Ruth Mourik, DuneWorks, The Netherlands
15:00 – 15:30		5c. Task 24 Closing the Loop – Behaviour Change in DSM: From theory to policies and practice. Extension proposal <i>Dr. Sea Rotmann, EECA, New Zealand</i> Download proposal <a href="https://example.com/here">here</a>
15.30 – 16:00		Coffee break
		6. CURRENT TASKS – LOAD LEVEL CLUSTER
16:30 – 17:00		6a. Task 16 – Phase 3 – Energy Efficiency and Demand Response Services – Task Status Report, <i>Jan W. Bleyl, EnergeticSolutions, Austria</i>
17:00 – 17:30		6b. Task 25 Business models for a more effective market uptake of DSM energy services – <i>Ruth Mourik, DuneWorks, the Netherlands</i>
17.30 – 18.30		7. PROGRAMME VISIBILITY
		<ul> <li>7a. Programme Visibility Report, Sea Rotmann</li> <li>7b. New website, Sea Rotmann</li> <li>Website statistics</li> <li>7c. Communications Plan, Sea Rotmann</li> <li>7d. How to arrange a "DSM Day" in your country</li> <li>François Brasseur, Belgium</li> </ul>
18:30 – 19:00		8. ADMINISTRATIVE MATTERS
		8a. Task Zero 8b. Financial Report 2014 and Budget 2015 Accountax Status Report Status of Common Fund payments 8c. ExCo approval of Forty Fifth ExCo meeting in South Africa in March 2015 8d. Decision on plans for the Forty Sixth ExCo meeting in Beijing, China, October 2015 8e. Plans for the Forty Seventh ExCo meeting April 2016
Adjourn		Hosted dinner 19:30

#### Friday 17 October 2014

08:00 - 12:00

(incl coffee break 10:30)

#### 9. SPECIAL SESSION

9a. Participating member countries present DSM issues in their respective countries -15 mins/each

#### 10. OTHER ISSUES

## Adjourn

We must leave the meeting room at 12.00 – if we have unfinished business we can continue in the beer-garden or restaurant, but we won't have a projector etc.

12:00 - 13:00 Lunch



#### REPORT FROM THE IEA SECRETARIAT

Information on recent developments within the IEA Secretariat

September 2014

#### **IEA Executive Office**

IEA Deputy Executive Director, Ken Fairfax, has confirmed his departure from the IEA. Fatih Birol is currently acting as Deputy Executive Director.



The **IEA Executive Director's Annual Report 2013** is the second of a regular annual series reporting on the IEA's operational and organisational achievements, as well as challenges and events over the year. It was presented to the IEA Governing Board and is also released publicly to ensure transparency and to take stock of the organisation's activities from a strategic perspective. 2013 was an important year for the IEA, given continued changes in the global energy economy as well as the IEA Ministerial meeting in November which brought together Energy Ministers from all 28 IEA member countries, accession countries Chile and Estonia, seven key partner countries – Brazil, China, India, Indonesia, Mexico, Russian Federation and South Africa -- as well as more than 30 top-level executives from the energy industry. Key Ministerial outcomes included the first IEA Ministers' Joint Statement on Climate Change and a declaration of association by six key partner countries to build multilateral cooperation with the IEA.

### Committee on Energy Research and Technology (CERT)

The **68<sup>th</sup> CERT meeting** took place on 2-3 June 2014 and was followed by a half-day workshop on "The Role of Technology, Innovation and Policy in Combating Climate Change". The 69th meeting will be held on 18-20 November 2014.

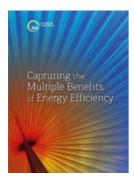
**IEA Medium-Term Strategy for Energy Research and Technology 2013-2017.** The Governing Board, at its meeting held 4-5 June 2014, approved the IEA Medium-Term Strategy for Energy Research and Technology, the purpose of which is to present a clear vision and mission statement for the technology-related activities of the IEA Secretariat, the CERT and the Energy Technology Network during the period 2013-2017. Contact: Jean-François GAGNÉ, Head of Energy Technology Policy Division (E: jean-françois.gagne@iea.org

#### Experts' Group on R&D Priority-Setting and Evaluation (EGRD)

The IEA Experts' Group on R&D Priority-Setting and Evaluation (EGRD), which was established by the CERT to promote development and refinement of analytical approaches to energy technology analysis, R&D priority setting, and assessment of benefits from R&D activities, held a workshop in Paris on 23-24 April 2014 on modelling and analyses in R&D priority setting and innovation. The workshop brought together around 40 experts from government, academia and industry to discuss approaches to capture technology innovation in energy models, to review indicators to asses and track energy innovation as well as to look at R&D priority setting in the private sector. The outcomes of the workshop contribute to the IEA's development of Energy Technology Perspectives 2015. The workshop presentations are available under www.iea.org/workshop/modellingandanalysesinrdpriority-settingandinnovation.html

The next EGRD workshop is planned for October 2014 in Germany on the role of energy storage in flexible energy systems. For more information, please contact: Diana.LOUIS (E: Diana.Louis@iea.org).

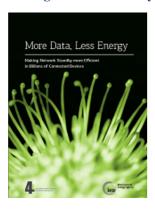
#### Capturing the Multiple Benefits of Energy Efficiency



The traditional focus on energy savings as the main goal of energy efficiency policy has, at times, led to an underestimation of the full value of energy efficiency in both national and global economies. Energy efficiency can bring multiple benefits, such as enhancing the sustainability of the energy system, supporting strategic objectives for economic and social development, promoting environmental goals and increasing prosperity. When the value of multiple benefits is calculated alongside traditional benefits of energy demand and greenhouse gas emissions reductions, investments in energy efficiency measures have delivered returns as high as four US dollars for every one US dollar invested.

For more information contact Nina CAMPBELL (E: nina.campbell@iea.org).

## More Data, Less Energy: Making Network Standby more Efficient in Billions of Connected Devices



The electricity demand of our increasingly digital economies is growing at an alarming rate. While data centre energy demand has received much attention, of greater cause for concern is the growing energy demand of billions of networked devices such as smart phones, tablets and set-top boxes. In 2013, a relatively small portion of the world's population relied on more than 14 billion of these devices to stay connected. That number could skyrocket to 500 billion by 2050, driving dramatic increases in both energy demand and wasted energy. Being connected 24/7 means these information and communication technology (ICT) devices draw energy all the time, even when in standby mode. This publication probes their hidden energy costs.

Available for free at: <a href="www.iea.org/etp/networkstandby">www.iea.org/etp/networkstandby</a>
For more information contact Vida ROZITE (E: <a href="www.vida.rozite@iea.org">vida.rozite@iea.org</a>).

#### **Energy Technology Perspectives**



Energy Technology Perspectives 2014 was launched at the 5<sup>th</sup> Clean Energy Ministerial in Seoul, Korea, on 12-13 May. ETP 2014 focuses on the theme of "Harnessing Electricity's Potential" and continues the evolution initiated in ETP 2012 by building on the work on energy systems. Systems integration, and the interdependencies of technologies, is at the heart of the analysis. While the long term analysis of the energy systems retains its objective of reducing emissions and end-use energy consumption, more focus is placed on operational aspects of the system including peak demand reduction and the integration of variable renewables.

ETP 2014 topical coverage

Decarbonising energy supply: Is solar the answer?

The enabling role of natural gas: Flexibility vs. Base load

Electrified transport - how quickly and how far can we go?

• Systems integration: Energy storage as a game changer?

- Financing low carbon electricity generation and capacity
- Partner country focus: Power generation in India

ETP 2015 plans are moving forward, with a proposed focus on providing better visibility of the potential of energy technology and innovation impacts on climate change mitigation. The partner country focus in ETP 2015 will be China. The scope will encompass all stages of research, development, demonstration and deployment processes to enable an economically viable low-carbon energy system, to increase policy maker confidence in the feasibility of achieving climate change mitigation targets ambitious enough to meet both short and long-term objectives, in support of the upcoming negotiations of COP 21 in Paris.

ETP 2016 initial discussions are being held with a focus to be on Urban Energy Systems and a partner country focus in Mexico.

Contact: Jean-François GAGNÉ, Head of Energy Technology Policy Division (E: jean-francois.gagne@iea.org).

#### **Implementing Agreements**



*Energy Technology Initiatives 2013*. Ensuring energy security and addressing climate change cost-effectively are key global challenges. Tackling these issues will require efforts from stakeholders worldwide. To find solutions, the public and private sectors must work together, sharing burdens and resources, while at the same time multiplying results and outcomes.

Through its broad range of multilateral technology initiatives (Implementing Agreements), the IEA enables member and non-member countries, businesses, industries, international organisations and non-governmental organisations to share research on breakthrough technologies, to fill existing research gaps, to build pilot plants and to carry out deployment or demonstration programmes across the energy sector.

The publication is available at:

www.iea.org/publications/freepublications/publication/name,43513,en.html.

Please note that we are now collecting input for the 2015 edition of *Energy Technology Initiatives* which will be launched at COP. While this is similar to every other edition of *ETI*, the 2015 COP will be held in France, a prime opportunity to raise awareness of IA work. An email from CERT Chair, Alicia Mignone, was sent to all IAs on 23 June informing them of the need to forward their submissions for the new edition. In order to meet our very strict internal printing deadline, the <u>due date for submissions is set at Wednesday 1 October 2014</u> and submissions should be forwarded to <u>diana.louis@iea.org</u>

**Industry Strategy Group** of the IEA Energy Technology Network (ETN). The aim of the Industry Strategy Group is to set an experts platform to discuss industry-related topics within the ETN, explore collaboration channels between IAs and provide advice to the Working Parties when relevant. A kick-off webinar of the Industry Strategy Group of the IEA Energy Technology Network (ETN) was held on the 20 March 2014. The the first proposed topical webinar of the new Industry Strategy Group (to be called the Industry Contact Group - ICG in the future) is to be on Industrial Waste Heat Recovery. An afternoon webinar (15:00h – 17:30h CET) is proposed on either the Tuesday December 9 or Thursday December 11.

For more information, please contact Carol BURELLE LOUIS (E: Carol.Burelle@NRCan-RNCan.gc.ca).

IA pages on the IEA website. A new landing page has been created on the IEA website <a href="http://www.iea.org/techinitiatives/">http://www.iea.org/techinitiatives/</a> and individual IA pages follow the format of *Energy Technology Initiatives*. This allows for standardisation of the visual format that can be regularly updated with new projects, and gives more prominence to the IAs as part of the Energy Technology Network. IA information will now also be integrated into the IEA work in each sector/technology area.

**IMPAG.** The new IMPAG website is nearing completion and will be launched in September. It will include a number of new features including one on best practices which will enable IAs to share their work with other members of the network. Further information will be sent out soon but in the meantime access to the current IMPAG website remains the same: www.iea.org/w/ia/:

Username: impag Password: Experts13

Please note that some of the membership and contact information on the old IMPAG site is now out of date as all new information is now being entered on the new site.

**Minutes:** A reminder to please forward a copy of ExCo minutes to the IEA Secretariat after each meeting. This is most helpful for updating the IEA Secretariat's records.

For more information, please contact Diana LOUIS (E: diana.louis@iea.org).

#### **IEA Energy Training Week 2014**

From 7-11 April, more than 130 energy specialists, most of them from developing and newly industrialising countries, gathered at the International Energy Agency headquarters in Paris for **Energy Training Week 2014**, the fourth annual introduction to IEA knowledge and research.

A general introduction to the latest in IEA best practice and research, Energy Training Week is a highlight of the Training and Capacity Building Programme that the IEA introduced in 2009 to enhance bilateral and regional co-operation with partner countries and to respond to the high demand for IEA training. Successful energy policy requires solid analysis, reliable models and robust tools. So to ensure a secure and sustainable energy future, the programme has instructed more than 2 000 energy experts and policy makers from both member and partner countries in IEA best practices.

For more information please visit <a href="www.iea.org/training/">www.iea.org/training/</a> or contact Assen GASHAROV E: assen.gasharov@iea.org).

### **Selection of recent IEA publications**

- PDF versions of many IEA publications are <u>downloadable</u> free of charge.
- PDF versions of all publications are free two calendar years after release.
- 50% discount for clients based in low and lower middle income countries on the World Bank list of economies.
- IEA Implementing Agreement participants are entitled to a 30% discount on IEA publications (contact the IEA bookshop, with your request and identification).
- For your special discount to be set up please click on <u>ASK FOR A DISCOUNT</u> and follow the procedure. Please do not place your order before receiving your confirmation e-mail.

#### a. Emissions Reduction through Upgrade of Coal-Fired Power Plants



Coal is the principal fuel for the generation of electrical power globally. It is the leading source of power generation in OECD countries and the dominant fuel source behind economic growth in non-OECD countries. However, while providing over 40% of the world's electricity, it is responsible for more than 70% of the CO2 arising from electricity generation.

The IEA carried out a project to examine the potential to improve the performance of existing coal-fired plants. Two power units in China were selected to showcase measures that would improve their net efficiency. The results built on the efficiency gains made under China's national energy efficiency improvement programme and demonstrated the enormous potential to improve performance, with

each percentage point increase capable of reducing CO2 emissions by many millions of tonnes over a unit's operational lifetime. Experiences learned in China can be applied to improving coal-fired power plant efficiency worldwide.

For more information, please contact Keith BURNARD (E: keith.burnard@iea.org).

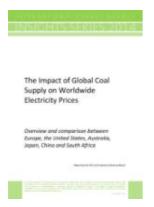
#### b. CCS 2014 - What Lies in Store for CCS?



CCS 2014 - What Lies in Store for CCS? represents a continuation of efforts by IEA to provide strategic, economic and policy analysis on various aspects of carbon capture and storage. CCS has suffered from a lack of attention by public and policy-makers over the past several years. At the same time, science increasingly points to the dangers of climate change and various mitigation plans continue to emphasise the critical role of CCS to limit temperature increase. It is necessary to now concentrate on concrete action. This publication was released in June 2014 and intends to help support governments and industry in moving this important low-carbon technology forward. CCS-2014 discusses important issues regarding CO<sub>2</sub> storage, CCS in industrial applications and the role that CO<sub>2</sub> utilisation could have in climate change mitigation.

For more information, please contact Juho LIPPONEN (E: juho.lipponen@iea.org).

#### c. The Impact of Global Coal Supply on Worldwide Electricity Prices



Hard coal is the main energy source for power, accounting for 36% of electricity generation worldwide. But its predominance varies greatly geographically. Whereas in countries like South Africa, Poland or China coal generation accounts for the majority of electricity, in many others it contributes much less, if not at all. Likewise, analysis of the impact of coal prices on electricity prices is not straightforward. In regulated markets, where fuel prices are passed through to the end customers, coal's price impact on the electricity bill is closely related to its share in generation. However, in liberalised markets, the marginal supply defines prices for all the generation; given that renewables, nuclear and lignite are low-variable cost generators, gas and coal often constitute the marginal supply. In Europe, for example, under the recent gas and coal price levels, coal is setting prices most of the time. This report examines how coal supply affects electricity prices in several major regions.

For more information, please contact Carlos FERNANDEZ (E: carlos.fernandez@iea.org).

#### d. Carbon Capture and Storage: Legal and Regulatory Review - Edition 4

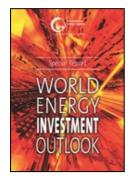


The IEA Carbon Capture and Storage Legal and Regulatory Review aims to help countries develop their own regulatory frameworks by documenting and analysing recent CCS legal and regulatory developments from around the world. It was first published in 2010, and a new edition is released annually to provide an up - to - date snapshot of global CCS regulatory developments.

Each edition includes short contributions from national, regional, state and provincial governments that review recent and anticipated CCS regulatory developments and highlight a particular, pre-nominated regulatory theme. To introduce each edition, the IEA provides a brief analysis of key advances and trends, based on the contributions submitted. The theme for this fourth edition of the CCS Review is policy measures to promote CCS demonstration and deployment. Other issues that have been highlighted include storage assessment and the Alberta Regulator Framework Assessment (RFA) process. Contributions from 22 governments and 6 international CCS organisations are presented in the fourth edition.

For more information, please contact Juho LIPPONEN (E: juho.lipponen@iea.org).

## e. World Energy Investment Outlook (WEO Special Report) and World Energy Outlook 2014



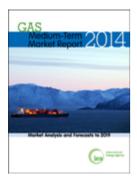
Questions about the reliability, affordability and sustainability of our energy future often boil down to questions about investment. But are investors ready to commit capital in a fast-changing energy world? This special report in the World Energy Outlook series takes up this question in a full and comprehensive update of the energy investment picture to 2035 – a first full update since the 2003 World Energy Investment Outlook.

With benchmark data on past investment trends and updated projections for investment at regional and global level, the report provides insights into:

- The structure of ownership and models for financing investment in different parts of the energy sector
- The continued importance of oil investment in the Middle East to meet demand, and the consequences of delay in such investment
- The dynamics and costs of LNG investment and how this can shape the future of global gas supply
- Where investment in the power sector might fall short of what is required, with important findings on the reliability of electricity supply in Europe and in India
- The outlook for investment in low-carbon technologies, including renewables, and energy efficiency and the barriers to their realisation
- How global investment and financing requirements change if governments take stronger action to address climate change

The free report is available at (www.worldenergyoutlook.org).

#### f. Medium-Term Gas Market Report 2014



Global natural gas demand grew just 1.2% in 2013, underperforming other fuels, because of a slow economy, supply constraints, sluggish LNG trade, and competition from coal and renewables in the power sector. Growth in non-OECD countries, which had buoyed global demand over the past decade, retreated to nearly the same pace as in OECD countries. Without the effect of colder weather in OECD countries, demand there would have actually fallen and global demand would have been unchanged.

The IEA *Medium-Term Gas Market Report 2014* gives a detailed analysis of demand, supply and trade developments as well as infrastructure investments to meet the 2.2% annual growth in gas demand expected through 2019.

It investigates the important changes that will transform the industry: rising regional disparities between gashungry regions such as China and the Middle East against weakening growth in the Former Soviet Union (FSU) and Europe; competition between FSU supplies and LNG from the United States and Australia, notably in Europe and Asia; the shift towards net imports in non-OECD Asia and Latin America; and uncertainty over whether Europe can ease its dependency on Russian gas. Besides enhanced coverage of gas in the power sector, this year's report features special focuses on the potential of gas in maritime transport; the competition between oil and gas to meet fast-growing power consumption in the Middle East; the implications of Iran's possible return to the international gas scene; and the interplay of natural gas liquids and natural gas in the United States.

For more information, please contact Anne-Sophie CORBEAU (E: anne-sophie.corbeau@iea.org).

#### g. Medium-Term Oil Market Report 2014



The non-conventional supply revolution that is transforming the North American oil patch has been widely recognised as a game changer for the oil markets and industry, but how is this transformation playing out against the backdrop of other relevant market developments? These and many other pressing questions today are addressed in the 2014 edition of the *Medium-Term Oil Market Report* (MTOMR). As the supply revolution enters a new phase, oil's role in the global energy mix is being redefined. More than ever, getting a handle on these developments is key to ensuring that energy security is maintained or enhanced, investment is appropriately targeted and resources are optimally leveraged. That makes the MTOMR's insights into the oil market for the next five years essential reading for energy industry and market stakeholders, policy makers and all those interested in energy and the broader economy.

For more information, please contact Antoine HALFF (E: antoine.halff@iea.org).

#### h. IEA CHP/DHC Collaborative



The IEA International CHP and DHC Collaborative (CHP: combined heat and power, DHC: district heating and cooling) was initiated in 2007 with the goal of accelerating deployment of cost-effective, clean CHP and district energy technologies, leading to increased use of renewable energy, reduced CO2 emissions and increased overall efficiency of the energy system; and of providing a platform for stakeholders to share best practices policies and experiences and applied solutions on these technologies. The currently running Phase III of the programme of work (2013-2014) is intended to help overcoming the main barriers and concerns raised, and it is compounded by three main pillars, namely:

- Country specific reports (scorecards), which aim to provide key policy recommendations concluded from specific analysis of the CHP and DHC market and regulatory framework at a national level of the selected countries.
- Development of a compendium of case studies of industrial CHP and integrated applications of CHP within DHC networks, including the business model and the financing mechanisms used to develop and operate the projects.

Country scorecards for Finland, India, Japan and Korea have been released in the Phase III of the Collaborative, which are available under <a href="www.iea.org/chp/countryscorecards">www.iea.org/chp/countryscorecards</a>. Scorecards for Mexico and the US are currently under preparation. The compendium of case studies Linking Heat and Electricity Systems has been recently finalised and can be downloaded under

www.iea.org/publications/freepublications/publication/name,50606,en.html.

Preparations for the Phase IV (2015-2016) of the Collaborative have started. Topics under discussion are the analysis of CHP/DHC in a smart city concept, the continuation of the country scorecard series as well as the development of technical fact sheets for CHP/DHC technologies.

For more information contact Araceli FERNANDEZ-PALES (E: Araceli.FernandezPales@iea.org).

## i. Medium-Term Renewable Energy Market Report 2014 - Market Analysis and Forecasts to 2020



Assesses market trends for renewables in the electricity, transport and heat sectors, identifying drivers and challenges to deployment, and making projections through 2020. The report presents for the first time an investment outlook for renewable power capacity, in addition to projections for renewable electricity technologies, a global biofuels supply forecast and extended analysis of final energy use of renewables for heat.

For more information contact Paolo FRANKL (E: paolo.frankl@iea.org).

# j. Energy Efficiency Indicators Manuals: Essentials for Policy Making and Energy Efficiency Indicators: Fundamental on Statistics



The need to collect more data and develop more robust indicators was a key message from last year's inaugural Energy Efficiency Market Report, which focused significantly on indicators analysis. The IEA developed the manual Energy Efficiency Indicators: Essentials for Policy Making and its companion publication, Energy Efficiency Indicators: Fundamentals on Statistics, to provide the necessary tools to initiate and/or further develop in-depth, appropriate and reliable energy efficiency indicators to support the policy decision-making process and international comparisons.

The two publications are available for free at:

http://www.iea.org/publications/freepublications/publication/name,48398,en.html http://www.iea.org/publications/freepublications/publication/name,50522,en.html

## **Upcoming IEA publications**

- The 2014 Energy Efficiency Market Report
- The 2014 World Energy Outlook
- Technology Roadmaps:
  - o Solar thermal electricity and solar PV (update)
  - Nuclear (update)
  - Hydrogen (new)

## 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.

#### **PPC REPORT**

May – September 2014.

#### **Daily operations**

- Paul Atkins accepted the request of the Chair to become Vice-Chair.
- Melanie Slade has been appointed as the new Desk Officer at IEA headquarters.

#### **Request for Extension**

Based on the input of the EXCO members (both during the meeting and in separate reponses) and with the input of Michael Moser (EUWP) and Melanie Slade we sent our adapted proposal to the EUWP, to be evaluated before the CERT decision in September. EXCO members have been asked to inform their national EUWP contact about the debate.

#### **Membership**

- We discussed membership with South Africa, they want to join, but we are waiting for the finalization of the paperwork. They invited us to Cape Town in the spring of 2015
- Collaboration with Schneider as sponsor is a dead-end, they are open for collaboration on a Task level
- China want to continue talks and proposed an EXCO meeting in 2016 in Bejing
- Nova Scotia, Canada, has shown interest to join.
- There have been several contacts with India, as a number of people changed positions. We hope there will be a more stable collaboration in the near future.
- Due to the coup d'etat in Thailand, contacts have been put on a hold.

#### **Outreach**

- Sea Rotmann, Chair of the visibility committee has written a draft communications plan. Some gaps have to be filled, before it is sent to the EXCO members and Operating Agents with the request to deliver input and start actions.
- The tender for the new website and house style was won by Weber Web, the site will be shown at the EXCO, and be fully operational by the end of the year.
- The webinars have been discussed frequently, and, with the strong support from Hans Nilsson and Hans de Keulenaer (ECI) have become a success.
- A DSM outreach day in Brussels, Belgium has been a huge success, and might be an example for others.

#### **Executive Committee procedures**

- After the introduction of the 2 pagers as a start for new Tasks, we have now developed templates for reporting to be more to the point dealing with Tasks matters and to shorten the PMD.
- Hans de Keulenaer wants the ExCo to consider putting ExCo meetings in capital/larger cities, so one can fly in one day, and out the next. USA and Italy cannot participate this time.
- Melanie Slade asks the IA to work closer together with the EEWP. We would like to do this, but wait for action from the Desk Officer, or the EEWP.
- Melanie will run a meeting in Pretoria, South Africa in March 2015, so we will try to combine this with our EXCO meeting.

#### **DSM UNIVERSITY**

#### 1. SUMMARY

The DSM University develops largely according to plan and in 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

The webinars are the "heartbeat" of the IEA DSM University. There has to 2014-09-16 been arranged 5 webinars with approximately 1200 persons registered and roughly 500 participants altogether presenting in the following themes.

Theme 1 - The logic of DSM

Course name	Task and Operating Agent
△Impact evaluation of Energy Efficiency and DSM programmes	1/9, Harry Vreuls
Theme 3 - Energy use (load level)	
△Best Practices in Designing and Implementing Energy Efficiency Obligation Schemes	22, David Crossley (RAP)
△ESCo market development: A role for Facilitators to play	6, Jan Bleyl
Theme 4 - Flexibility (load shape)	
△ Using Demand-Side Management to Support Electricity Grids	15, David Crossley
△ISGAN Annex 2 Spotlight on Demand Management	

October 6 there will be a webinar on theme 5 – Integration, with the title "Managing Variability, Uncertainty and Flexibility in Power Grids with High Penetration of Renewables" presented by Dr Lawrence Jones, Alstom (http://www.leonardo-academy.org/course/view.php?id=266).

For November 6 there is a webinar in preparation on Energy Management with presentation by Catherine Cooremans from the Business School of Geneva. This fits to theme 2 - Governance (Energy Management)

#### 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 ceritification, testing is needed.

<sup>&</sup>lt;sup>1</sup> Forwarding is also possible from www.dsmu.org and www.dsmuniversity.org.

<sup>&</sup>lt;sup>2</sup> This is based on the book <a href="http://scitechconnect.elsevier.com/wp-content/uploads/2014/06/Sample\_FM\_Renewable-Energy-Integration-2.pdf">http://scitechconnect.elsevier.com/wp-content/uploads/2014/06/Sample\_FM\_Renewable-Energy-Integration-2.pdf</a>

- 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
The Logic of DSM, in which motivations and overview is presented in particular	24	Jan 15
to decision makers and people who wants to see how issues connect to each other	1/9 - 2	?
Governance (or DSM Management), in which incentives, cost/benefit,	6	?
planning, evaluation and regulation are dealt with but also institutional behavioural issues such as barriers and biases.	Tech- learning (Wene)	?
<b>Energy use (Load Level),</b> technologies and measures to promote load level changes including strategic shifts of energy use to reduce carbon emissions.	(3)	?
Flexibility – (Load shape), technologies and applications in DR systems and as regards customer benefits and participation	23	?
Integration, putting energy efficiency, storage and RES together to systems	17	?
Business models, to deliver energy services	25	Dec 14

#### Guest opportunities

- a) Guest IAs: 4E, ISGAN
- b) Guest IEA: The multiple benefits of EE (NN)
- c) Policy issues: Club of Rome (Wijkman), Municipalities (Mayor NN), EE (Joyce)
- d) 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. One such contact is Life Academy (<a href="http://www.life.se/">http://www.life.se/</a>) who designs and delivers education for the Swedish Aid Administration (SIDA) in particular for energy efficiency and renewable fuels and with participants from developing countries in Asia and Africa and Eastern Europe.

Another contact, temporarily on hold, is IRENA.

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

#### 5. IDEAS FOR NEW WORK

See above

## **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.				Ex	ists				
2. WEB-casts			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

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## 8. MATTERS FOR THE EXCO

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

## 9. PARTICIPATING COUNTRIES

NA

## TASK 23-ROLE OF THE DEMAND SIDE IN DELIVERING EFFECTIVE SMART GRIDS – TASK STATUS REPORT

Task Status Report

#### **Operating Agent:**

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United Kingdom
Tala 144 (2) 151 247 2226

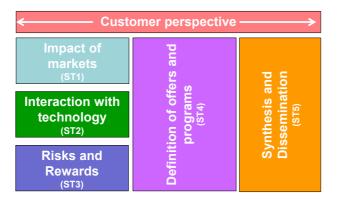
Tel: +44 (0) 151 347 2336 Fax: +44 (0) 151 347 2406

#### 1. SUMMARY

Task 23 explored the potential risks and rewards associated with Smart Grids from the perspective of consumers. The project drew together international experiences and examples of best practices in order to provide guidance to Smart Grid implementers on how to ensure the demand side contributes to the delivery of effective Smart Grids.

The Task was initiated at the 37th Executive Committee Meeting, held in Washing in April 2011, and work on the project commenced in June 2012. The countries that participated in this Task are Netherlands, Norway, Republic of Korea, Sweden and UK.

Task 23 comprised five Subtasks, as highlighted below.



All the sub-tasks have been concluded.

These Sub-Tasks have focussed on gathering experiences and knowledge about:

- How the external environment facilitates or presents barriers to the active participation of consumers in Smart Grid related activities:
- The experiences of consumers in existing Smart Grid related activities, both within the participating countries and elsewhere; and
- How risks and rewards are evaluated by consumers, and how they impact on the consumer decision making process.

The results of these Sub-Tasks demonstrate that:

• There are many factors that influence an individual's intention and behaviour. These factors include the individual beliefs and the social norms that influence them, as well as the external environment or context. Thus, two individuals presented with the same opportunity within the same context may behave differently due to their own personal views and beliefs. Similarly, two individuals with similar views and beliefs may behave differently due to the context.

The results demonstrate the growing body of evidence that demonstrates that individuals do not make
decisions that fit within a rational economic approach. That is, consumers do not make decisions based
on whether or not the gains outweigh the losses.

A copy of this status report can be obtained by clicking here.

#### 2. OBJECTIVES FOR THE LAST SIX MONTHS

The following provides a brief description of each of the subtasks together with a summary of the current status. (For a complete description of the scope of each Subtask and its associated activities, see the full Proposal within the Pre-Meeting Document for the 37<sup>th</sup> Executive Committee Meeting, held in Washington D.C., USA, April 2011).

#### Subtask 1 Impact of energy markets on the role of customers

There are many stakeholders in the energy market with different interactions with consumers and different responsibilities. This subtask has involved exploring the interactions of different stakeholders using 'market map' for each of participating countries, with the consumer as the central focus. This included power and information flows and responsibility (e.g. for billing and metering).

Progress of subtask 1: complete

#### Subtask 2 Interaction between technology and customers

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

This subtask has drawn upon the available information on Smart Grid enabling technologies in order to consider the appropriateness of these technologies, both from the customer perspective and the Smart Grid industry perspective. This has included an analysis of market and technology readiness levels.

Progress of subtask 2: complete

#### Subtask 3 Identification of Risks and Rewards associated with Smart Grids

This subtask explored the possible risks and rewards relating to the Smart Grid concept from the consumer perspective. Each of these risks and rewards are influenced by a number of stakeholders for which the Smart Grid can meet specific needs and requirements. The subtask has also developed and demonstrated a method for quantifying these risks and rewards.

Progress of subtask 3: complete

#### Subtask 4 Defining offers and programmes (tools) to help ensure Smart Grids meet needs of customers

The effectiveness of the Smart Grid can be improved by engaging with the demand side. However, in order to engage with consumers and achieve their "buy-in", the Smart Grid should provide tangible benefits to customers themselves. This could include direct benefits associated with Smart Grid deployment, or additional functionality or services which represent "added value" to the consumer.

This subtask has drawn upon the results of subtasks 1 to 3, and uses the lessons learnt from these subtasks to provide guidance to Smart Grid implementers, specifically for initiatives that require action from households and small commercial / industrial businesses.

Progress of subtask 4: complete

## Subtask 5 Helping customers to actively engage with Smart Grids – Synthesis and Dissemination of Findings

The main objective of this activity was to understand how the findings of subtasks 1 to 4 come together, and disseminate the results via a series of regional workshops organised and delivered by the Task participants. This task has essentially been undertaken in parallel with the other subtasks, and has focussed on identifying the key issues that impact on the way customers interact and view Smart Grids. This includes the impact of market structure, the role of technology, the ability for customers to realise any potential rewards whilst minimising the risks, and the effective deployment of tools and measures.

Progress of subtask 5: complete

#### **Experts meetings**

To date, all four of the planned Experts Meetings have now been organised and delivered. These are summarised below:

		Number of Attendees							
Date	Place	All	National	Gov't	Industry	Academic			
			Experts						
25 <sup>th</sup> & 26 <sup>th</sup> June 2012	Chester, UK	9	4	1	8	0			
9 <sup>th</sup> to 11 <sup>th</sup> October 2012	Oxford, UK	8	5	1	7	0			
4 <sup>th</sup> & 5 <sup>th</sup> July 2013	Steinkjer, Norway	6	3	1	5	0			
8 <sup>th</sup> & 9 <sup>th</sup> October 2013	Seoul, Korea	5	4	1	4	0			

#### Seminar/Conferences

		Number of Attendees				
Date	Location	Type of	National	Gov't	Industry	Academic
		meeting	Experts			
11 <sup>th</sup> & 12th June 2014	Rome, Italy	Technical conference	360			

#### **Task Outputs**

- Market maps for each participating country, showing the interaction between Smart Grid stakeholders and customers
- National reports for each participating country, summarising the key drivers for Smart Grid and the structure of the electricity market.
- Sub-task 1 Report 'The Impact of Electricity Markets on Consumers', which provides an analysis of the impact of different market structures on Smart Grid implementation from the perspective of customers.
- A total of 23 case studies were prepared by the Task Experts, providing a summary of the Smart Grid experiences from a customer perspective.
- Assessment of the Technology and Market Readiness Levels of the 23 case studies.
- A total of 22 consumer surveys were reviewed to explore the range of view and opinions towards Smart Grid activities.
- Sub-task 2 Report 'Interaction between Customers and Smart Grid Related Initiatives'.
- A method of quantifying risks and rewards from the perspective of consumers. Implementation of the method showed that it does not provide a reliable way of predicting whether or not a customer will take up a Smart Grid related initiative.
- A review of the factors that influence the decision making of individuals.
- Sub-task 3 Report 'How risks and rewards from the perspective of customers affects the decision to engage in Smart Grids'.
- The results of sub-tasks 1 to 3 were combined to produce a Smart Grid Guidance Document, which describes a step-by-step approach to implementing Smart Grid Initiatives that require action from households and small commercial/industrial businesses.
- An Executive Summary that provides an overview of the project and the Guidance Document.
- A 'slide-pack' for the National Experts to use to disseminate the results of the Task to their stakeholders.

#### 3. OBJECTIVES FOR THE NEXT SIX MONTHS

None – project complete

#### 4. OUTREACH

The outreach activities have been facilitated and led by the National Experts. For example, the UK National Expert held five stakeholder workshops, and a similar number was organised by the Dutch Expert. These workshops were attended by a range of industry and government stakeholders.

A paper on the results of Task 23 were also presented at the CIRED Workshop 2014, 11-12 June in Rome. The workshop focussed on the "Challenges of Implementing Active Distribution System Management". The workshop was attended by 360 delegates from 36 countries. Over 483 abstracts were submitted; 222 were selected for presentation during the poster sessions, and 30 were selected for oral presentation. This was claimed to be an all-time 'record' for the workshop. The conference was very much focussed on technical

issues, and it was therefore a privilege to be invited to give an oral presentation on customer issues – especially as the topic was not well represented during the conference, and in many of the sessions, customers were not even mentioned at all. However, this was noted by one of the session leaders who suggested that whilst the customer didn't get a mention at all on the second day, we (i.e. the industry) probably will be 'talking about customers and nothing else for the next 10 years!

Carrie Pottinger has requested a summary of the key messages learnt from Task 23, with a view to including a short excerpt within the forthcoming ETI publication. The status of this is currently unknown.

#### 5. IDEAS FOR NEW WORK

The review of case studies indicated that whilst a large number of trials and pilots have been undertaken, the majority have focussed on the technological aspects of Smart Grid deployment and on measuring any changes to energy consumption. At the time the Task 23 research was undertaken, very few had focussed on exploring the behavioural aspects in order to understand the elements that are liked and/or disliked by consumers. Those that did, were at their early stages, so results were not available for analysis within this project. In addition, further new trials and projects are being initiated, many of which have been designed specifically to look at consumer behavioural aspects. Therefore, it is recommended that work continue to collate evidence from trials and pilots to ensure that learning from these trials is used to update and refine the guidance document produced within Task 23.

It is believed that the step-by-step approach developed by Task 23 represents the elements that need to be addressed in order to ensure consumers are more willing to 'sign-up' to Smart Grid initiatives and deliver the expected outcomes. Each of the steps addresses different elements of the energy behavioural model used to guide the project. In particular, they ensure that the Smart Grid initiative has been designed to ensure that:

- tangible benefits are delivered to consumers;
- specific needs of the relevant industry stakeholders are met;
- outcomes are monitored to evaluate what elements have been successful, why they have been successful and for whom they have been successful.

All that remains, therefore, is to put it all into practice. This could be undertaken as a future IEA DSM Task, or independently by Smart Grid implementers. However, it is recommended that the experiences and outcomes be reviewed and used, where appropriate, to update and refine the step-by-step process.

#### 6. FINANCE

The budget for Task 23 was £279,220 based upon five participating countries. Thus, the financial contribution per Participant was £55,844 (based upon five Participants). To date, payments have been received from all five participating countries, as stipulated in each participant's letter of engagement.

Expenditure is in line with expected for project status. By the end of August, 97% of the budget had been spent. After attendance at the forthcoming ExCo, it is anticipated that 100% of the budget will be spent.

### 7. ACTIVITY TIME SCHEDULE

n/a – project completed.

### 8. MATTERS FOR THE EXCO

- Approval of the final Task Status Report.
- Approval of the final Task Management Report.

#### 9. PARTICIPATING COUNTRIES

- Netherlands
- Norway
- Republic of Korea

- Sweden
- UK

## TASK 23 – ROLE OF THE DEMAND SIDE IN DELIVERING EFFECTIVE SMART GRIDS – FINAL MANAGEMENT REPORT

Final Management Report

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Download Final Management Report <u>here</u> Download the Executive Summary <u>here</u>

#### **PARTICIPANTS**

The participants in Task 23 are as follows:

- NL Agency, Netherlands
- . Enova, Norway
- ❖ Korea Power Exchange (KPX), Republic of Korea
- Swedish Energy Agency, Sweden
- ❖ Department of Energy and Climate Change, UK

#### **CONTRIBUTORS**

The following National Experts have contributed to this preparation of this document:

- Yvonne Boerakker, DNV GL
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- ❖ Magnus Brolin, SP Technical Research Institute of Sweden
- Duncan Yellen, EA Technology

#### INTRODUCTION

This is the Final Report of Task 23 of the International Energy Agency Demand Side Management Programme. (An overview of the IEA and the DSM Programme is found in the Appendix I).

This international cooperative project commenced in June 2012 and was completed in June 2014. Five countries participated in the Task. Contact information for each country is found in Appendix II. Linda Hull, of EA Technology, UK served as Operating Agent. The overall objective of the Task was to identify the possible risks and rewards associated with Smart Meters and Smart Grids from the perspective of end-consumers.

This document provides a high level summary of the work performed during the Task and the main accomplishments. The document is structured as follows:

- Section 2 presents the background to the project, and explains the main drivers for the work undertaken.
- Section 3 sets out the organisation of the project, the project participants and provides brief descriptions of each of the five sub-tasks.
- Section 4 describes the work performed, the project deliverables and the dissemination activities undertaken by the project participants.
- Section 5 summarises the major accomplishments of the project
- Section 6 includes recommendations for further work
- Section 7 concludes by summarising the lessons learnt and the main conclusions from the project.

#### **BACKGROUND**

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

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

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

Therefore, this Task was set up to explore how consumers interact with Smart Grids and Smart Grid related initiatives.

#### PROJECT ORGANISATION

The Participants agreed that the scope of Task 23 would focus on end-consumers who are, or are expected to be, participants of a Smart Grid initiative. Specifically, the Task focussed on consumers with Smart Meters, or likely to have Smart Meters in the coming years, and are thus expected to play an important part in the future of Smart Grids as they become deployed. This therefore, included:

- Residential consumers (i.e. households)
- Small commercial and business consumers that are treated in a similar way to residential consumers (i.e. they have similar metering arrangements or have similar access to the energy market).

The Task was organised into five sub-tasks, as illustrated in Figure 1.

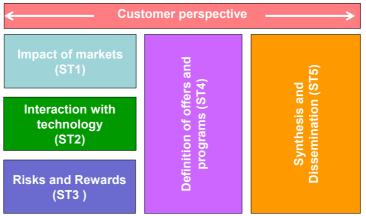


Figure 1 Task 23 Overall Work Programme

The following provides a brief description of each of the sub-tasks.

**Subtask 1: Impact of energy markets on the role of customers:** There are many stakeholders in the energy market with different interactions with consumers and different responsibilities. This sub-task examined the interactions of different stakeholders, with the consumer as the central focus.

**Subtask 2: Interaction between technology and customers:** The way that customers use and relate to technologies such as Smart Meters, electric vehicles, heat pumps and energy storage has a significant impact on their ability to contribute to an effective Smart Grid. This sub-task reviewed a number of Smart Grid related case studies in order to understand consumer attitudes towards Smart Grid related interventions.

**Subtask 3: Identification of Risks and Rewards associated with Smart Grids:** This subtask focussed on the risks and rewards associated with Smart Grids from a consumer perspective, and examined a range of factors that influence the decision making of individuals.

Subtask 4: Defining offers and programmes to help ensure Smart Grids meet the needs of customers: This sub task collated the results from sub-tasks 1 to 3 to produce guidance on how Smart Grid initiatives should be designed in order to make them more attractive to consumers.

Subtask 5: Helping customers to actively engage with Smart Grids – Synthesis and Dissemination of Findings: This sub task ensures that the learning points are disseminated amongst the key stakeholders within the participating countries.

#### **Project participants**

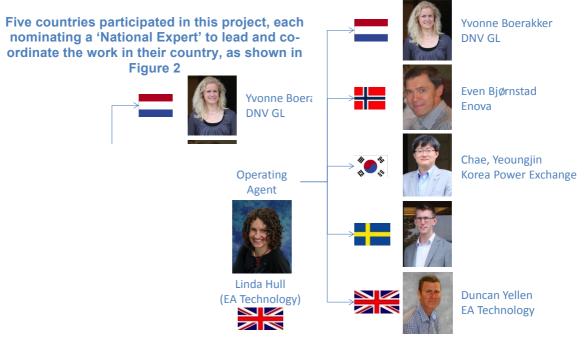


Figure 2 Project Participants

#### **WORK PERFORMED**

The factors that influence the energy consumption within a Smart Grid context are wide ranging and complex. Task 23 specifically considered those factors that relate to the consumer, i.e. how individuals interact with Smart Grids. Specifically, the project examined how to ensure Smart Grids deliver energy efficiency and/or cost savings by enabling or stimulating certain energy behaviours. In order to do so, it was first necessary to define what is meant by energy behaviour. More generally, a 'behaviour' can be understood as any activity or decision described in terms of the following elements:

- the 'actor/decision maker' who decides/acts/performs the behaviour (in this context this is the consumer);
- a well-defined 'outcome' or action (i.e. switching off lights, installing a heat pump, keeping a comfortable indoor temperature or washing clothes);
- a 'goal' or object (in this context, this would be within the home or workplace<sup>3</sup>);
- a point in time or a 'time period'; and
- a specific 'context'.

Based on this general concept of 'behaviour', the more specific concept of 'energy behaviour' can be defined as a behaviour that concerned with the energy use of the relevant actor/decision maker. By considering energy behaviour in this way, it was possible to use a behavioural model to help explain the factors that influence the decision maker's choice over whether or not, or how, to perform the behaviour. It is important to stress here that it is *always* the individual who makes the decision and performs the behaviour. This approach to energy behaviour is wide, ranging from specific one-off behaviours (such as investment decisions) to habitual daily routines (such as television viewing and washing clothes, often referred to as energy practices). A number of models or frameworks of understanding exist and these have been used with varying success in an array of situations. Some focus on individuals, whilst others focus on the individual in his/her social environment. Some focus only on behaviour whilst others also focus on the context impacting that behaviour. Some focus on one-off behaviours whilst others focus on habitual behaviours. Where some focus on discrete actions, others focus on a complex inter-related set of actions.

It was recognised that that no single model or framework is considered to be ideal. They are considered to be necessary tools to assist decision makers implement policies, and to support practitioners as they implement technologies and initiatives to help achieve an outcome that depends upon behaviour change. Importantly, these

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<sup>&</sup>lt;sup>3</sup> Smaller businesses only within the scope of this document

models do not attempt to predict an outcome, i.e. how individuals will behave. Rather, they are used to provide a perspective on energy behaviour and the aspects that influence an individual's decision of whether or not to perform a specific behaviour.

The fundamental academic debate – as indicated above – is whether this choice is best understood by studying characteristics of the decision maker (individualistic approach) or by studying the physical, social and political context within which the decision is made (system approach). Some energy behaviours may be best discussed within the individualistic approach, while others are best understood within the system approach. The starting point for Task 23 was that valuable insights can be found within all of these approaches. Therefore, the model shown in Figure 3 was used to provide theoretical guidance for the research undertaken for this project.

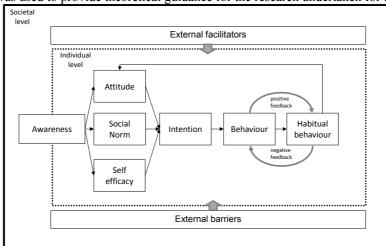


Figure 3 Theoretical model of energy behaviour<sup>4,5</sup>

The model shown in Figure 3 demonstrates that an individual's behaviour is defined by their own attitudes, their own abilities and the social norms relevant to them. In addition, it is important to also take account of their context and the opportunities or barriers presented to them. Consequently, an initiative that is successful for one group of consumers may not necessarily be effective with another group of consumers in a similar context due to their differing views and beliefs. Likewise, what works for one group of consumers may not work for similar consumers in another context due to the opportunities and barriers that exist.

#### **External facilitators and barriers**

The drivers for the implementation of Smart Grids differ from one context to another. Therefore Smart Grid initiatives need to be designed with reference to the specific context within which they will be implemented. The project commenced by contrasting and comparing the drivers for Smart Grid development across the five countries participating in Task 23. Understanding these drivers provides a starting point for the design of the Smart Grid initiative; essentially, it defines the problem that needs to be solved.

Market maps, such as that illustrated in Figure 4, were prepared by each of the participating countries to define the various interactions between the market stakeholders. This is one of three market maps for GB that illustrates the interactions between stakeholders in the current market, and defines the flow of money associated with energy purchasing interactions. Other maps were also produced to show the physical flow of energy and network access charging arrangements. The needs of one stakeholder may not necessarily align with the needs of another. Whilst understanding the needs of a particular stakeholder is important, it is also important to ensure that potential conflicts are identified and managed.

<sup>&</sup>lt;sup>4</sup> Fishbein, M., I. Ajzen (2010) *Predicting and changing behavior: the reasoned action approach*. New York: Psychology press.

<sup>&</sup>lt;sup>5</sup> Egmond, C., R. Bruel (2007) *Nothing is as practical as a good theory. Analysis of theories and a tool for developing interventions to influence energy-related behaviour.* Senter Novem, 16 September 2007

## Energy Purchasing (flow of money between stakeholders) in GB<sup>6</sup>

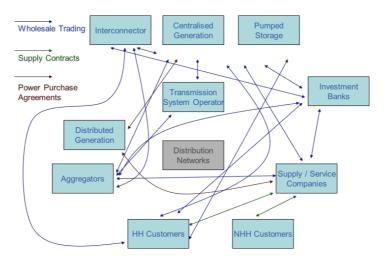


Figure 4 Market Mapping to Understand the Interactions between Stakeholders and Consumers

Understanding these interactions, and the impact of the energy system as a whole, is an important first step in designing Smart Grid initiatives; as it defines the external barriers and facilitators (opportunities) in the energy behavioural model shown in Figure 3.

Managing potential conflicts between the various stakeholders will be an important element in the design of Smart Grid initiatives, particularly where the electricity market is unbundled. Although such conflicts are not well reported to date, they have the potential to become increasingly relevant in the future as renewable generation accounts for a greater proportion of overall generation capacity.

#### **Smart Grid Case Studies**

During the project, 23 case studies from around the world were used to explore consumer experiences with one or more Smart Grid related interventions. They provide valuable insights into the individualistic elements of the energy behavioural model presented in Figure 3.

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

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

A map showing the location of the case studies is provided in Figure 5.

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<sup>&</sup>lt;sup>6</sup> Although Northern Ireland is a part of the United Kingdom, it forms part of the Single Electricity Market with Ireland. Therefore, this example, considers the electricity market within Great Britain (GB) rather than the UK as a whole.

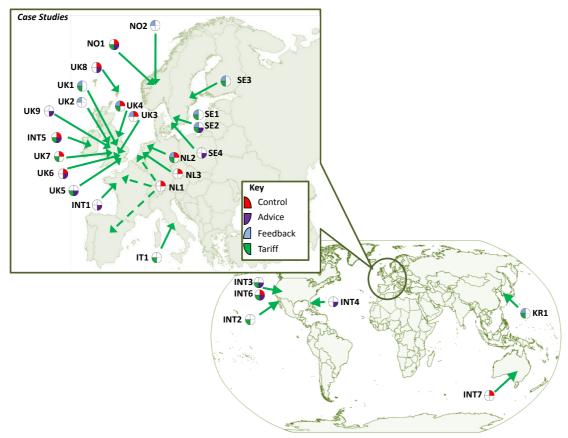


Figure 5 Case Studies Reviewed

#### **Exploring Risks and Rewards**

A methodology for quantifying the losses and gains associated with Smart Grid implementation from the perspective of consumers, i.e. the end-uses of electricity, was investigated. The methodology was used to quantify the potential losses and gains for a case study relating to the offer of free loft insulation. The analysis demonstrates that a traditional neo-classical economic analysis does not provide a viable prediction of customer behaviour. In the example considered, the potential gains more than outweighed any potential losses, but still the offer was not taken up by a sizeable proportion of individuals.

The analysis was supplemented by an examination of the factors that influence the decision making of individuals. Here, the focus was on understanding how consumer attitudes, social norms and capabilities affect an individual's intention (or not) to perform a specific energy behaviour.

This review highlighted that there are many different factors that influence the decision making of individuals. Understanding these helps to ensure that Smart Grid initiatives can be structured to make it more likely that consumers are willing to engage in them. Some examples are listed here:

- Risk aversion, which is the reluctance of a person to accept an offer with an uncertain payoff rather than an alternative with a more certain, but possibly lower, expected payoff. However, the reverse is true where losses are concerned, when individuals more likely to opt for a more risky outcome. This would suggest there may be merit in framing Smart Grid initiatives in terms of "how much is wasted" if a certain behaviour is not adopted, rather than in terms of "how much can be gained" if it is adopted.
- Faulty discounting, whereby an individual is impatient when it comes to decisions that involve benefits that are received in the future, but where the reverse is true where payments are made. Thus, there is a tendency for an individual to prefer to receive an immediate reward and defer any payment, rather than pay up-front and receive rewards at a later date.
- Different treatment of risks and rewards which implies that the pain of losing €1 is twice as great as the 'pleasure' of gaining €1, and therefore, gains need to significantly outweigh any losses.
- Difficulty estimating the probability of events which results in a skewing of the potential risks towards events with a high consequence but a very low probability of occurrence.

#### **Project Dissemination**

Each of the participating countries has implemented its own approach to disseminating the results of the project. This has largely focussed on dissemination to the key stakeholders who have funded the project, via a series of stakeholder workshops and meetings led and organised by the national participants. These have included a diverse range of stakeholders including:

- Distribution Network Operators
- Transmission System Operators
- Energy Suppliers

- A Electricity Market Operator
- National and Local Government
- Appliance Manufacturers

#### **Project Outputs**

The project outputs are contained in the following documents:

Type of Document	Title	Date published
	The Impact of Electricity Markets on Consumers	January 2013
Research Report	Interaction between Customers and Smart Grid Related Initiatives	November 2013
	How risks and rewards from the perspective of customers affects the decision to engage in Smart Grids	December 2013
Guidance Document	Smart Grid Implementation: How to engage consumers	July 2014
Executive Summary	Smart Grid Implementation: How to engage consumers	July 2014

# PROJECT ACCOMPLISHMENTS

The results of the project have been collated to provide general guidance on how Smart Grid initiatives should be designed in order to make them more attractive to consumers.

The guidance document is written in the form of 'step-by-step' approach to implementing Smart Grid related initiatives that involve energy behaviour change. The step-by-step approach, which is described in Table 1, has been designed to ensure that all elements of the energy behavioural model (shown in Figure 3) are addressed in the design of the Smart Grid initiative. The guidance is intended for

- Energy Suppliers, Distribution Network Operators and System Operators who are the main stakeholders responsible for the development of Smart Grids, and thus stand to directly benefit from the engagement of consumers. However, there are many aspects of the design of Smart Grid initiatives that can be directly influenced by other industry stakeholders. These include:
- Government and Energy Regulators who are responsible for setting policy, legislation and the rules defining the way the energy market operates. There are a number of specific areas where they can directly influence the way Smart Grid initiatives evolve.
- Third-party aggregators, who act as intermediaries between consumers and Smart Grid implementers. They have a pivotal role as facilitators, and co-ordinate between multiple Smart Grid implementers.
- Energy service companies, who help consumers manage their electricity consumption, and can design initiatives specifically to meet the needs of the consumers themselves.
- Technology developers / appliance manufacturers, who develop technical solutions that meet the needs of Smart Grid implementers, third party aggregators, energy service companies and the consumers themselves.

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

Figure 6 provides a high level overview of the step by step approach.

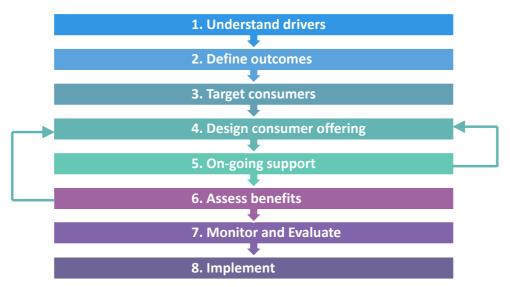


Figure 6 Step by Step approach

If any one of the steps is omitted, there is a risk that the initiative will not deliver benefits to the energy system as a whole and/or will not be adopted by consumers.

A brief description of each of these steps is provided in Table 1.

Table 1 High level overview of the step-by-step approach

Step	Overview
Step 1. Understand the drivers	This Step examines how the drivers for Smart Grids influence the design of the initiative. Whilst the needs of the industry stakeholders represent the primary drivers for Smart Grids, this Section outlines why identifying the needs of consumers is also important.  The Section demonstrates how understanding the interactions between market stakeholders, and the context within which the Smart Grid initiative must be designed, is an important first step in designing Smart Grid initiatives. This defines the external barriers and facilitators (opportunities) in the energy behavioural model introduced in Figure 3.

# Table 1 continued

This Step illustrates the elements of the Smart Grid over which it is envisaged that consumers will retain control. It represents the 'behaviour' element of the energy behavioural model introduced in <b>Figure 3</b> Theoretical model of energy behaviour <b>Figure 3</b> , i.e. the elements over which individuals can make decisions as to whether (or not) to perform an action. Specifically, it considers how energy behaviour change can help to achieve certain outcomes required by industry stakeholders.
This Step describes how to identify potential consumers who may be able to deliver the outcomes identified in Step 2.  The starting point for identifying potential consumers is to consider whether the drivers for Smart Grids (see Step 1) and/or the required outcomes (see Step 2) are directly inked to a specific end use. If so, then it would seem sensible to first look to targeting consumers with those loads.  This Step also introduces the concept of Customer Segmentation, which uses lifestyle factors, attitudes and motivations to define groups of consumers so that offerings can be designed specifically to meet the needs of a particular group.
This step describes the key factors that need to be taken into consideration when designing the Smart Grid initiative to ensure that consumers are willing to 'sign-up' to he initiative.  This Section focusses on the following elements of the behavioural model introduced in Figure 3, and how they influence the intention to perform an action:  Awareness Social Norms Attitude Self-Efficacy(*)
Step 5 examines how to go about ensuring that consumers stay signed up to the nitiative and deliver the required outcomes. In addition to the Awareness, Attitude, Social Norms, and Self-efficacy elements of the model, this Step also considers how the positive and negative feedback that an individual experiences once they are 'signed up' influences the on-going intention to perform an action.
This Section of the document describes the potential benefits of Smart Grid initiatives for consumers, and also considers how the overall benefits are distributed amongst takeholders.
n addition to measuring the impact on energy consumption, this Step explains the need o assess what elements of an initiative have been successful and for whom they have been successful.
Once Steps 1 to 7 have been put in place, all that remains is then to put it all into practice.

<sup>(\*)</sup> extent of an individual's belief in their own ability to complete a task or achieve a goal

#### RECOMMENDATIONS FOR FURTHER WORK

The review of case studies indicated that whilst a large number of trials and pilots have been undertaken, the majority have focussed on the technological aspects of Smart Grid deployment and on measuring any changes to energy consumption. At the time the Task 23 research was undertaken, very few had focussed on exploring the behavioural aspects in order to understand the elements that are liked and/or disliked by consumers. Those that did, were at their early stages, so results were not available for analysis within this project. In addition, further new trials and projects are being initiated, many of which have been designed specifically to look at consumer behavioural aspects. Therefore, it is recommended that work continue to collate evidence from trials and pilots to ensure that learning from these trials is used to update and refine the guidance document produced within Task 23.

It is believed that the step-by-step approach developed by Task 23 represents the elements that need to be addressed in order to ensure consumers are more willing to 'sign-up' to Smart Grid initiatives and deliver the expected outcomes. Each of the steps addresses different elements of the energy behavioural model introduced in Figure 3. In particular, they ensure that the Smart Grid initiative has been designed to ensure that:

- tangible benefits are delivered to consumers;
- specific needs of the relevant industry stakeholders are met;
- outcomes are monitored to evaluate what elements have been successful, why they have been successful and for whom they have been successful.

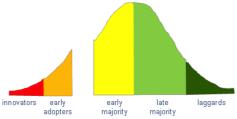
All that remains, therefore, is to put it all into practice. This could be undertaken as a future IEA DSM Task, or independently by Smart Grid implementers. However, it is recommended that the experiences and outcomes be reviewed and used, where appropriate, to update and refine the step-by-step process.

# LESSONS LEARNED AND CONCLUSIONS

The top five findings from Task 23 are:

- 1. The impact of electricity markets on consumer engagement in Smart Grid activities is wide ranging and often poorly understood. There is rarely a one size fits all solution, with many elements of electricity markets representing both facilitators and barriers to participation.
- 2. Very little information is currently available on customer attitudes and experiences towards Smart Grids. Most of the published data focuses on measuring outcomes, with little data available to help with understanding what works and for whom it works.
- 3. Information collated from consumer surveys shows that consumers *say* they want a financial reward in return for actively engaging in Smart Grids. However, evidence from trials shows that there are many reasons that lead to consumers *not* engaging in Smart Grids.
- 4. Whilst significant progress has been made on the development of technologies, the market is not yet 'ready' to accept them. This is referred to as 'crossing the chasm' that exists between early adopters and the early majority.

Early adopters (see illustration) see new technology as a way to "beat the herd" and reap the advantages of the new technology/practice before it becomes common practice. The early majority, however, are hesitant to new technology, and choose to sit on the fence until it is proven.



5. Neo-classical economic analysis is not sufficient to predict whether or not a consumer will undertake a specific action. Ensuring that the benefits outweigh any costs does not guarantee energy behaviour change takes place. Non-financial influences are as important, if not more so.

The top five key messages for Smart Grid Stakeholders arising from Task 23 are:

1. Ensure the Smart Grid initiative provides direct, tangible benefits to consumers, and ensure the initiative is tailored to meet the specific needs of target consumers. Therefore it is essential to identify the needs of the target consumers - do not assume that providing a financial incentive is sufficient to persuade someone to participate.

- 2. Community engagement can be a powerful motivator for behaviour change, but only where there is already a 'sense of community'. Therefore, consider tailoring the initiative to provide direct benefits to the community itself. Community champions could help with recruitment if they can convince others the technology has reached a stage of development where it actually can function as intended and provide benefits.
- 3. Provide an element of choice over every aspect of the initiative, from the type of interventions to the installation process. However, it is important to avoid too much choice. Therefore keep the number of choices to a minimum, and ensure the options are tailored to meet the needs of the target consumers.
- 4. Take care when framing the initiative, as this has a direct influence on consumer attitudes. For example:
  - Frame in terms of what is wasted if a behaviour is not adopted, rather than what is gained if it is adopted,
  - Frame benefits in terms of a meaningful reference point (i.e. against something valued to the consumers).
- 5. Understand customer concerns, and do not underestimate the strength of these concerns. Ensure there is a mechanism to deal with misunderstandings and ensure that when things go wrong they are put right quickly. Do not assume that what works for one group of consumers will also work with another group.

# **Appendix I - Overview of the International Energy Agency and the Implementing Agreement on Demand Side Management Technologies and Programmes**

The International Energy Agency (IEA) is an autonomous agency established in 1974. The IEA carries out a comprehensive programme of energy co-operation among 28 advanced economies, each of which is obliged to hold oil stocks equivalent to 90 days of its net imports. The aims of the IEA are to:

- Secure member countries' access to reliable and ample supplies of all forms of energy; in particular, through maintaining effective emergency response capabilities in case of oil supply disruptions.
- Promote sustainable energy policies that spur economic growth and environmental protection in a global context – particularly in terms of reducing greenhouse-gas emissions that contribute to climate change.
- Improve transparency of international markets through collection and analysis of energy data.
- Support global collaboration on energy technology to secure future energy supplies and mitigate their
  environmental impact, including through improved energy efficiency and development and
  deployment of low-carbon technologies.
- Find solutions to global energy challenges through engagement and dialogue with non-member countries, industry, international organisations and other stakeholders.

To attain these goals, increased co-operation between industries, businesses and government energy technology research is indispensable. The public and private sectors must work together, share burdens and resources, while at the same time multiplying results and outcomes.

The multilateral technology initiatives (Implementing Agreements) supported by the IEA are a flexible and effective framework for IEA member and non-member countries, businesses, industries, international organisations and non-government organisations to research breakthrough technologies, to fill existing research gaps,, to build pilot plants, to carry out deployment or demonstration programmes – in short to encourage technology-related activities that support energy security, economic growth and environmental protection.

More than 6,000 specialists carry out a vast body of research through these various initiatives. To date, more than 1,000 projects have been completed. There are currently 41 Implementing Agreements (IA) working in the areas of:

- Cross-Cutting Activities (information exchange, modelling, technology transfer)
- End-Use (buildings, electricity, industry, transport)
- Fossil Fuels (greenhouse-gas mitigation, supply, transformation)
- Fusion Power (international experiments)
- Renewable Energies and Hydrogen (technologies and deployment)

The IAs are at the core of a network of senior experts consisting of the Committee on Energy Research and Technology (CERT), four working parties and three expert groups. A key role of the CERT is to provide leadership by guiding the IAs to shape work programmes that address current energy issues productively, by regularly reviewing their accomplishments, and suggesting reinforced efforts where needed. For further information on the IEA, the CERT and the IAs, please consult <a href="https://www.iea.org/technitiatives">www.iea.org/technitiatives</a>.

The Implementing Agreement on Demand Side Management Technologies and Programmes belongs to the End-Use category above.

# **IEA Demand Side Management Programme**

The Demand-Side Management (DSM) Programme is one of more than 40 co-operative energy technology programmes within the framework of the International Energy Agency (IEA). The Demand-Side Management (DSM) Programme, which was initiated in 1993, deals with a variety of strategies to reduce energy demand. The following member countries and sponsors have been working to identify and promote opportunities for DSM:

Austria Norway Belgium Spain Finland Sweden Switzerland India United Kingdom Italy Republic of Korea **United States** Netherlands ECI (sponsor) New Zealand RAP (sponsor)

**Programme Vision during the period**: Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems **Programme Mission:** Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either

facilitate operations of energy systems or facilitate necessary market transformations

The Programme's work is organized into two clusters:

- The load shape cluster, and
- The load level cluster.

The 'load shape" cluster will include Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. The "load level" will include Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions.

A total of 24 projects or "Tasks" have been initiated since the beginning of the DSM Programme. The overall program is monitored by an Executive Committee consisting of representatives from each contracting party to the Implementing Agreement. The leadership and management of the individual Tasks are the responsibility of Operating Agents. These Tasks and their respective Operating Agents are:

- Task 1 International Database on Demand-Side Management & Evaluation Guidebook on the Impact of DSM and EE for Kyoto's GHG Targets – Completed Harry Vreuls, NOVEM, the Netherlands
- Task 2 Communications Technologies for Demand-Side Management Completed Richard Formby, EA Technology, United Kingdom
- Task 3 Cooperative Procurement of Innovative Technologies for Demand-Side Management Completed Hans Westling, Promandat AB, Sweden
- Task 4 Development of Improved Methods for Integrating Demand-Side Management into Resource Planning – Completed Grayson Heffner, EPRI, United States
- Task 5 Techniques for Implementation of Demand-Side Management Technology in the Marketplace Completed Juan Comas, FECSA, Spain
- Task 6 DSM and Energy Efficiency in Changing Electricity Business Environments Completed David Crossley, Energy Futures, Australia Pty. Ltd., Australia
- Task 7 International Collaboration on Market Transformation Completed Verney Ryan, BRE, United Kingdom

- Task 8 Demand-Side Bidding in a Competitive Electricity Market Completed Linda Hull, EA Technology Ltd, United Kingdom
- Task 9 The Role of Municipalities in a Liberalised System Completed Martin Cahn, Energie Cites, France
- Task 10 Performance Contracting Completed Hans Westling, Promandat AB, Sweden
- Task 11 Time of Use Pricing and Energy Use for Demand Management Delivery- Completed Richard Formby, EA Technology Ltd, United Kingdom
- Task 12 Energy Standards
  To be determined
- Task 13 Demand Response Resources Completed Ross Malme, RETX, United States
- Task 14 White Certificates Completed Antonio Capozza, CESI, Italy
- Task 15 Network-Driven DSM Completed David Crossley, Energy Futures Australia Pty. Ltd, Australia
- Task 16 Competitive Energy Services
   Jan W. Bleyl, Graz Energy Agency, Austria / Seppo Silvonen/Pertti Koski, Motiva, Finland
- Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages
   Seppo Kärkkäinen, Elektraflex Oy, Finland
- Task 18 Demand Side Management and Climate Change Completed David Crossley, Energy Futures Australia Pty. Ltd, Australia
- Task 19 Micro Demand Response and Energy Saving Completed Linda Hull, EA Technology Ltd, United Kingdom
- Task 20 Branding of Energy Efficiency Balawant Joshi, ABPS Infrastructure Private Limited, India
- Task 21 Standardisation of Energy Savings Calculations Harry Vreuls, SenterNovem, Netherlands
- Task 22 Energy Efficiency Portfolio Standards Completed Balawant Joshi, ABPS Infrastructure Private Limited, India
- Task 23 The Role of Customers in Delivering Effective Smart Grids Linda Hull. EA Technology Ltd, United Kingdom
- Task 24 Closing the loop Behaviour change in DSM, from theory to policies and practice Sea Rotmann, SEA, New Zealand and Ruth Mourik DuneWorks, Netherlands
- Task 25 Business Models for a more Effective Market Uptake of DSM Energy Services Ruth Mourik, DuneWorks, The Netherlands

For additional Information contact the DSM Executive Secretary, Anne Bengtson, Liljeholmstorget 18,11761 Stockholm, Sweden. Phone: +46 70 7818501. E-mail: anne.bengtson@telia.com Also, visit the IEA DSM website: http://www.ieadsm.org

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# TASK 20 – BRANDING OF ENERGY EFFICIENCY – FINAL TASK MANAGEMENT REPORT

Task Management Report

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Download Final Management Report here

#### INTRODUCTION

This is the Final Management Report of Task XX of the International Energy Agency Demand Side Management Programme. (An overview of the IEA and the DSM Programme is found in Appendix A).

This international cooperative project was initiated in April 2008 and was completed in August 2014. Four countries participated in the Task. Contact information for each country is found in Appendix B. Mr. Balawant Joshi of India served as Operating Agent.

The objective(s) of the Task was to:

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

# **BACKGROUND**

Branding of a product or service by its very nature creates 'pull' in the market, which opens up opportunities for wide scale deployment of the product or service. While Task VII had taken up the initial step towards development of framework for market transformation, it is necessary to evolve a comprehensive framework, which could be used by the government and industry to develop the market for energy efficient products.

The Task was expected to build on the achievement of Task VII, expected to understand and analyze reasons for failure of branding of EE in the marketplace and to identify 'ways and means' by which potential for branding could be increased. The Task XX was established to identify the barriers for branding of energy efficiency, and evolve strategies to overcome those barriers. The Task was proposed and initiated with the belief that it should be possible to reverse the fortunes of energy efficiency products and services, if successful branding is achieved. Branding of Energy Efficiency products and services would increase their visibility and credibility. This Task was also designed to explore the avenues available to the national government to promote branding of energy efficiency.

# ORGANISATION OF THE TASK

# 1.1 Scope and tasks

The Participants agreed that the Task would focus on survey of successful efforts in branding of energy efficiency in the participating countries as well as other countries, study barriers and inter-linkages for different aspects of branding and identify best practices in energy efficiency. Originally the Task was to consist of the following activities:

- To identify knowledge and attitude of private households in developing electricity markets;
- To identify best practices in definition of suppliers of energy efficiency products and services;

- To identify the potential for energy efficiency products and services in other energy consuming sectors such as agriculture, industrial and commercial, etc.;
- To identify the potential for programmatic approach towards energy efficiency; and
- To identify the barriers to branding of energy efficiency;

According to original work plan, the task was to begin in October 2009 and was to be completed within 24 months. The first expert meeting of the task was held in Madrid on December 7-8, 2009. As per the Work Plan, OA initiated sub-task I and carried out substantial research in this regard. However, owing to administrative issues faced by the OA, he requested ExCo to keep the task in abeyance. The matter was discussed in subsequent ExCo meetings.

In 40<sup>th</sup> ExCo meeting OA submitted a proposal to restructure the task and reduced the task to sub-task V. This would mean submission of the "Report on Best Practices in Branding of Energy Efficiency". The Executive Committee accepted the proposal of OA and asked OA to restart the work. Accordingly OA has decided to restart the task. The following sub-task was identified to accomplish the objectives:

#### **Identification of 'Best Practices in Branding EE**

In this Task survey successful effort in branding of energy efficiency in the participating countries as well as other countries will be undertaken. Identify and study inter-linkages for different aspects of branding and role of institutional structures and government support in development of successful branding strategies. Develop best practices in branding of energy efficiency and identify key lessons which may be adopted in development of successful branding strategies.

# 1.2 Participants

The following countries participated in the Task:

- India
- Spain
- United States
- France

While four countries mentioned above signed National Participation Plans, only Spain made financial contribution as well as nominated National Expert who was continuously involved in the Task. India was the first country to make financial contribution but never appointed National Expert. France also made financial contribution but did not appoint National Expert. An agreement could not be concluded with United States due to onerous compliance requirements on the Operating Agent. As a result, the Task suffered significant handicap.

# 1.3 Work Performed

Task 20 was delivered through various activities performed by the Operating Agent. In this Task, involvement of National Experts was very limited. These activities included;

- Preparation reference questionnaire for collating information on potential practices in branding of energy efficiency
- Internet based survey and filling of reference questionnaire for successful efforts in branding of energy efficiency in the participating countries as well as other countries
- Preparation and completion of information collected through survey and reference questionnaire.
- Preparation of case studies in branding of energy efficiency
- Preparation report on best practices in branding of energy efficiency

#### DELIVERABLES AND INFORMATION DISSEMINATION

#### 1.4 Task Products

Task 20 produced two deliverables as listed below:

- 1. Report on case studies in branding of energy efficiency
- 2. Report on best practices in branding of energy efficiency

Report 1 identifies and evaluates successful efforts in branding of energy efficiency in the participating countries as well as other countries and developed case studies in branding of energy efficiency. A step-by-step approach was adopted while preparing the case studies.

This includes review of the successful effort in branding of energy efficiency in products and services; overview of the programmes, institutional structure and their branding efforts; review and analysis of branding strategies, and identification of lessons learned of products and services. Seven case studies are presented in the report, as listed below:

- ENERGY STAR Programme, United States
- Standards and Labelling Programme, India
- Ecolabel Programme, Europe
- Fuel Efficient Car Maruti Suzuki India Limited, India
- Sustainability Initiatives ITC Limited, India
- Energy Efficient Lighting Solutions (CFLs & LEDs) Philips Global
- Energy Efficient Motors Baldor Electric Company, United States

Report 2 builds upon the baseline information, case studies and lessons learned in the first report to explore the best practices in branding of energy efficiency. This report includes:

- Introduction to Task and Concept of Branding of Energy Efficiency
- Overview of approach and methodology adopted for execution of the Task,
- Review of Task VII on the basis for the task,
- Review of various studies on consumer behaviour and based on this study charactristies of consumer behaviour energy efficiency
- Governments efforts to influence consumer behaviour towards energy efficiency have also been discussed
- Study of brands and branding aspects is carried out and
- lessons from the point of view of adoption in energy efficiency have been drawn
- A high level review and analysis of branding strategies adopted in case studies developed in Report 1
- Idnetification of the best practices in branding of energy efficiency based on review and analysis of branding strategies adopted in case studies
- Lessons learned and Conclusion

#### 1.5 Information Dissemination

At the Task Level, the main method of information dissemination was circulation of Research Report On "Case Studies in Branding of Energy Efficiency" to country experts.

#### ACCOMPLISHMENTS

Task 20 provides guideline information that can be adopted in development of successful branding strategies. This report provides information on the best practices in branding energy efficiency, which can be developed for large-scale deployment of energy efficiency. The Task developed seven case studies, which provide huge amount of information and insights into following aspects of branding of energy efficiency.

- An overview of consumer behaviour towards energy efficiency and governments efforts to influence consumer behaviour
- Study of brand, branding and branding strategies in products and services
- Case studies in branding of energy efficiency, assessment of branding strategies adopted and lesson learned
- Best practices in branding of energy efficiency

Development of two exhaustive reports; one containing seven case studies and another containing detailed analysis of these case studies is major accomplishment of this task. These reports will provide deep insight to policy makers, program and campaign designers and private sector on what works and what doesn't when it comes to branding of energy efficiency in real life.

#### RECOMMENDATIONS FOR FURTHER WORK

Whilst Task 20 provides best branding practices in energy efficiency, it is believed this could help in development of successful branding strategies for large-scale deployment of energy efficiency and develop energy efficiency as brand. The branding practices presented here are based on the case studies developed as a part of this Task.

Although significant information was collected for each case study to ensure that these case studies are in the same format and reader is able to compare various aspects of the cases in consideration. However, these case studies are on the basis of secondary and publicly available information. Due to insufficient budget and administrative difficulties faced by the Operating Agent, primary research could not be carried. Hence, it is recommended that case studies may be prepared using primary research. It is also recommended that product manufactures and service providers are involved while preparing these case studies.

As stated, the case studies relied upon the information available in public domain. Not only that publically available information is limited but also sometimes intentionally designed by product or service provider to influence sales and business. Consumer feedback on energy efficiency performance of product or service need to be studied in an impact assessment of branding strategies.

# **CONCLUSION**

Potential for energy efficiency exists in several parts of the energy economy such as products, services, industries, etc., and can be achieved through actions at programme and institute level. Given the prospects for energy efficiency, conclusion of study has been categorized in three heads as products and services; Labeling Programme; and Company and Institutions.

#### **Products and Services**

- Branding can be effectively used for wide scale deployment of the energy efficiency product or service.
   Branding can also help in removing barriers related to lack of information about energy efficiency products and services.
- Credibility of energy efficiency products and services can be increased by labeling programmes such as ENERGY STAR, Star Label etc. Labelling instrument has potential to spread social and/or ethical products and services markets, reflecting a shift in public opinion from blind/purely environmental concerns to a more holistic approach to sustainability.

- Product manufacturers can develop their products as energy efficiency brands like Baldore Electric
  Company that has developed products such as energy efficient motor as brand. Concept of energy
  efficiency in service sector is still new, however labeling of services from point of view of sustainability
  would improve credibility of service provider.
- While developing product or service as sustainable brand, branding strategies such as advertising can help in building brand. Maruti Suzuki, through advertising campaigns such as "Petrol khatam hi nahi hota" and "Kitna deti hai" effectively communicated and re-emphasized its leadership in the realm of fuel efficiency. The advertising designed for sustainable products shall emphasize on different aspects of product such as energy consumption and saving compared to substandard product throughout the life of product, reduction in environment impact compared to substandard product at the end of life environment performance, comfort offered by the product & look and should also justify higher cost than substandard product etc.

#### **Labeling Programme**

- Labeling programme has been identified as one of the most commonly used instruments for influencing sustainable consumer choices. Labeling programme such as Energy Star, Star Label and Eco Label work in mandatory as well as voluntary phase has expanded to more products and countries in recent years.
- Study of labeling programme show that the sustainability effects of labelling schemes are growing with heightened consumer interest in environmental and social issues across globe.
- Labels are raising questions among consumers on contributions to sustainability across the life-cycle of products and work as means for attracting consumer towards sustainable products and services
- Labeling programme designates products and services that protect the environment through superior
  energy efficiency, without trade-offs in performance or quality and with attractive financial paybacks on
  any additional initial purchase costs. And also helps in increasing integrity of the product and services
- Label or symbol to be pasted on products in labeling programme is simple way for consumers to identify
  products that are among the most energy-efficient on the market. Consistent messaging can also be used
  along with label or symbol to communicate clearly to target audiences about qualifying labeled products
  and services.
- Government supported labeling programme are more successful than labeling programme initiated by
  private, this is because degree of random monitoring is offered by the government or a third party labeling
  agency in order to be credible to consumers.
- Mandatory and Voluntary labeling programme both are efficient tool for promoting sustainability. However we find that the prevalence of one system over the other depends on the relative importance of different groups of producers and consumers. We indeed find that mandatory labeling is likely to result in those countries where highly averse consumers are prevalent and producers are using mainly a non/low standard technology. On the other hand, when consumers are not strongly averse and prefer the price reduction associated high standard producers, a voluntary labeling system is more likely to emerge.

#### **Company and Institutions**

- Government programmes and policies work as catalyst in making the switch to energy efficient. In case of CFL and LED technologies, it is the thrust given by the government policies and programmes such as MEPs, labelling, bulk purchase and distribution, on bill financing, tax waivers, subsidies, awareness campaigns and so on that have played a pivotal role and driven the penetration of CFLs and LED with reduced price in the residential sector rather than any specific branding efforts. These efforts also encourage manufacturers to invest in R&D programmes and introduce and push growth of CFL and LED market.
- Sustainability reporting can be used by companies to inform consumers of their social and environmental values and practices. This approach has adopted by ITC Ltd., which is working mechanism by which consumers are informed of the environmental and social conditions under which products and services have been produced in ITC. ITC has adopted sustainability approach in both goods producing companies as well as service sector and claims as only company in the world, which for its totality of operations is positive in respect of all the three dimensions-is carbon, water and solid waste recycling positive.
- Companies can work ahead of government policy, rules, regulations and standards in energy efficiency by
  deeply involved in R&D and may pioneer innovations in energy efficient. Maruti Suzuki has also
  developed itself as energy efficiency brand by advertising as India's the most fuel efficient cars.
- Beside sustainability reporting and energy efficiency claims, the companies also have to develop their
  credibility by day to day operation by engaging and participating in technology compact. Philips
  participated in the L Prize competition organized by U.S. Department of Energy (DOE) and was awarded
  the L prize, as the solution it offered meant big energy and environmental savings, and also represented a
  major technological leap forward for LED lamps.
- The companies can also increase their credibility and their product by partnering with government supported labeling programmes such as ENERGY STAR. Philips partnered with ENERGY STAR and released a total of 269 ENERGY STAR qualified products in 2012. Considering efforts of Philips in energy efficiency, Philips has been awarded with ENERGY STAR partner of the Year, a Product Manufacturer top honours award for 2013. Baldor partnered with NEMA Premium and ENERGY STAR to increase its brand visibility.

# **Limitations of the Study**

The author has taken due care while collecting data and this writing report as part of this study, however following limitations remain:

- This study is limited to study of branding practices and strategies adopted for promotion of energy efficiency, eco friendly, sustainable products and most relevant products only.
- The result of this study is limited due to information constraint as secondary and publically available information is the prime source of information.
- Study of branding or brand development strategies involve study of various components such as background study on brand development, brand and branding strategies, consumer response, and post implementation impact assessment of branding; however such information is brand sensitive and is not available in public domain which also limits the result of this study.
- The study covers the effect of branding at broader level; however no study has been carried for assessment of
  impact of particular branding strategies on development of brand, even if carried out not available in public
  domain on development of brand.

Study of consumer behaviour and response is very crucial while analyzing the best branding practices in
energy efficiency, however such work is not envisaged in the scope of work and author relied on studies and
research report available in public domain. The references of relevant studies have been given at appropriate
places.

#### LESSONS LEARNED

The result of Task 20 has shown that various branding strategies need to be considered while developing campaigns for promotion of energy efficiency. Each of the factors identified below need to be considered in light of cultural, market context.

- Design and development of logo/label
- Branding message
- Multimedia marketing
- Marketing campaign
- Partnership with government institutes, energy programmes/initiatives and supply chain
- Partnership with labelling programmes
- Government regulations and regimes
- Sustainability initiatives

While none of the case studies discussed in Task have made effective use of Social Media, it is envisaged that future branding efforts would also involve effective use of social media. All these factors impact branding and its effectiveness in the marketplace. It will be useful, it we have tools to assess or evaluate the impact of each factor. However, it is not always possible to quantify benefits from individual factor.

We concluded that branding can be effectively used for promotion of energy efficiency in country's energy market provided appropriate strategies are developed. Branding can eliminate information barrier about energy efficiency and can also encourage consumer for adoption of energy efficiency in day to day life. It can work as market transformation tool for large scale deployment of energy efficiency.

The adoption of branding strategies depends on business development strategies and consumer market. The individual and umbrella branding approaches can be adopted for products and programmes respectively. While adopting branding strategies for energy efficiency programmes and initiatives administrated by Government organization or government entities, umbrella branding approaches are more effective. Whereas manufactures' and service providers' promoting their individual energy efficiency products and services may adopt individual branding approaches. The manufactures and service providers can also adopt umbrella branding approaches while promoting their business and business strategies as energy efficient product manufacture or service provider.

Government may adopt regulatory instrument for promotion and adoption of energy efficiency in the country. Energy efficiency initiatives such development of regulation and programme framework have been identified as most effective tools, which result in the large scale deployment of energy efficiency. Such regulatory instrument not only helps energy efficiency initiative to be viable but also help other stakeholders such as manufacturers and consumers in their own marketing strategies.

It has also been noticed that effective branding strategies improve return on investment in research and development by manufactures and service providers thereby helping them make further investments in more efficient products. This could help them in becoming pioneer in energy efficiency.

Sustainability is a composite concept, which involves not only energy efficiency but also environmental and social aspects. The companies that promote energy efficiency, also is sustainability concept while developing branding strategies. However, impact of using sustainability concepts in branding is not known.

# Appendix A: Overview of the IEA and DSM Programme

The Demand-Side Management (DSM) Programme is one of more than 40 co-operative energy technology programmes within the framework of the International Energy Agency (IEA). The Demand-Side Management (DSM) Programme, which was initiated in 1993, deals with a variety of strategies to reduce energy demand. The following member countries and sponsors have been working to identify and promote opportunities for DSM:

Austria Norway Belgium Spain Finland Sweden India Switzerland Italv United Kingdom Republic of Korea **United States** Netherlands ECI (sponsor) New Zealand RAP (sponsor)

**Programme Vision during the period**: Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems **Programme Mission:** Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either facilitate operations of energy systems or facilitate necessary market transformations

The Programme's work is organized into two clusters:

- The load shape cluster, and
- The load level cluster.

The 'load shape' cluster will include Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. The "load level" will include Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions.

A total of 24 projects or "Tasks" have been initiated since the beginning of the DSM Programme. The overall program is monitored by an Executive Committee consisting of representatives from each Contracting Party to the Implementing Agreement. The leadership and management of the individual Tasks are the responsibility of Operating Agents. These Tasks and their respective Operating Agents are:

- Task 1 International Database on Demand-Side Management & Evaluation Guidebook on the Impact of DSM and EE for Kyoto's GHG Targets – Completed Harry Vreuls, NOVEM, the Netherlands
- Task 2 Communications Technologies for Demand-Side Management Completed Richard Formby, EA Technology, United Kingdom
- Task 3 Cooperative Procurement of Innovative Technologies for Demand-Side Management Completed Hans Westling, Promandat AB, Sweden
- Task 4 Development of Improved Methods for Integrating Demand-Side Management into Resource Planning – Completed Grayson Heffner, EPRI, United States
- Task 5 Techniques for Implementation of Demand-Side Management Technology in the Marketplace Completed
   Juan Comas, FECSA, Spain
- Task 6 DSM and Energy Efficiency in Changing Electricity Business Environments Completed David Crossley, Energy Futures, Australia Pty. Ltd., Australia

- Task 7 International Collaboration on Market Transformation Completed Verney Ryan, BRE, United Kingdom
- Task 8 Demand-Side Bidding in a Competitive Electricity Market Completed Linda Hull, EA Technology Ltd, United Kingdom
- Task 9 The Role of Municipalities in a Liberalised System Completed Martin Cahn, Energie Cites, France
- Task 10 Performance Contracting Completed Hans Westling, Promandat AB, Sweden
- Task 11 Time of Use Pricing and Energy Use for Demand Management Delivery- Completed Richard Formby, EA Technology Ltd, United Kingdom
- Task 12 Energy Standards To be determined
- Task 13 Demand Response Resources Completed Ross Malme, RETX, United States
- Task 14 White Certificates Completed Antonio Capozza, CESI, Italy
- Task 15 Network-Driven DSM Completed David Crossley, Energy Futures Australia Pty. Ltd, Australia
- Task 16 Competitive Energy Services
   Jan W. Bleyl, Graz Energy Agency, Austria / Seppo Silvonen/Pertti Koski, Motiva, Finland
- Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages
   Seppo Kärkkäinen, Elektraflex Oy, Finland
- Task 18 Demand Side Management and Climate Change Completed David Crossley, Energy Futures Australia Pty. Ltd, Australia
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- Task 21 Standardisation of Energy Savings Calculations Harry Vreuls, SenterNovem, Netherlands
- Task 22 Energy Efficiency Portfolio Standards Completed Balawant Joshi, ABPS Infrastructure Private Limited, India
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- Task 25 Business Models for a more Effective Market Uptake of DSM Energy Services Ruth Mourik, DuneWorks, The Netherlands

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# **Appendix B: Contact information of Participants**

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# TASK 17 – INTEGRATION OF DEMAND SIDE MANAGEMENT, DISTRIBUTED GENERATION; RENEWABLE ENERGY SOURCES AND ENERGY STORAGES – PHASE 3 – TASK STATUS REPORT

Task Status Report

#### Operating Agent(s)

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# 1. 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 <a href="http://www.ieadsm.org/ViewTask.aspx?1D=16&Task=17&Sort=0">http://www.ieadsm.org/ViewTask.aspx?1D=16&Task=17&Sort=0</a>).

#### 2. OBJECTIVES FOR THE LAST SIX MONTHS

Generally the Task started with a delay of more than 3 months. Therefore some corrections to the time plan must be taken during the next Task meeting.

# 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**

- A metric for assessing projects based on different properties (e.g., TRL) has been developed and will be review by the experts

- An international public workshop (Workshop on DSM: Potentials, Implementation and Experiences) has been organized to discuss potentials and flexibility of consumers

#### 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**

None

#### 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**

- An international public workshop (Workshop on DSM: Potentials, Implementation and Experiences) has been organized to discuss implementations and experiences of DSM and DR projects.
- A comprehensive list of recent studies and project developments has been started and evaluated.

#### 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

# **Experts meetings**

Date	Place	# of	Type of	Govern-	Industry	Academic
		Experts	meeting	ment		
19. 5. 2014	Graz, Austria	9	Kick Off	1	2	6

#### Seminars/Conferences

Date	Place	Partcipants	Type of	Govern-	Industry	Academic
			meeting	ment		
20.5.2014	Graz, Austria	70+	Public	20	25	25
			Workshop			
10.6.2014	Brussels,	50+	Belgian	20	25	5
	Belgium		meeting			
			organized			
			by ExCO			

# Reports produced in the past six months

Review on the <u>'Workshop on DSM: Potentials, Implementations and Experiences'</u> will be proposed for the IEA DSM Spotlight.

#### 3. OBJECTIVES FOR THE NEXT SIX MONTHS

#### Subtask 10 - Role and potentials of flexible consumers

OAs prepare document and collect information from experts.

#### Subtask 11 - Changes and impacts on grid and market operation

#### **Subtask 12 - Sharing experiences and finding best practices**

OAs prepare use case collection list and send out for comments

#### **Subtask 13 - Conclusion and Recommendations**

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

# **Planned Experts meetings**

Date	Place
17. 9. 2014	Webconference Expert Meeting
3./4. 11. 2014	Expert Meeting (The
	Netherlands)

#### Planned seminars/conferences

Date	Place
2223. 10. 2014	IEA EGRD Meeting, Germany,
	Berlin

# Reports/Publications planned for the next six months

- 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)
- Contribution to IEA Expert Group R&D Workshop in Berlin, Germany (Matthias)

# 4. 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 DSM in Graz, Austria organized (70+ participants)
  - → Contacted from ENA, France on behalf of the Seoul Metropolitan Government.
- Ongoing exchange with potential new participating countries
  - o 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
  - Contact with experts from Finland
- Workshop about 'Energy Demand-Side Management in Belgium in the context of the EU
- Energy Efficiency Directive and beyond: how can IEA DSM help defining our future
- energy system?' in Brussels, Belgium attended (10.6.2014 René)
- Workshop on 'Smart Cities and Smart Grids' for Seoul Metropolitan Government (SMG) was organized at AIT and Task 17 was presented (11.6.2014 Matthias).
- Member of the 'Flexibility in Power Systems Advisory Panel' for Ecofys study (Matthias)

# 5. IDEAS FOR NEW WORK

# 6. FINANCE

Realization AIT: approximately 55k/16k Euro All / last 16 month

Realization TNO: approximately 14292/6804 Euro All / last 16 months

Finance and invoices to the participating countries have to be fixed at the next expert meeting after the ExCo meeting when the final participation commitment has been settled. Offers have been sent or will be sent in the next weeks.

	Country	Commitment	Offer	Contractpartner	Signed	Contact
1	Austria	Υ	(Y)	AIT	Y (OA and	CR together)
2	Switzerland	Υ	N	AIT	N	
3	Swede	Υ	Υ	TNO	N	
4	Copper Alliance	Υ	Υ	TNO	N	
5	The Netherlands	Υ	Υ	TNO	Υ	
6	USA	Υ	N	AIT	N	
7	Italy	N	Υ	TNO	N	Rene
8	Belgium	N	N	TNO	N	Rene
9	Serbia	N	N			Matthias
10	India	N	N	AIT	N	Matthias
11	Germany	N	N	AIT	N	Matthias
12	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).

# 7. ACTIVITY TIME SCHEDULE

As mentioned above the Task is delayed by 3 months and the time plan has to be updated accordingly.

IEA-DSM TASK XVII - Phase 3	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
Subtasks								
Subtask 10 - Role and potentials of flexible consumers								
Subtask 11 - Changes and impact on the grid and market operation	า							
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								

# 8. MATTERS FOR THE EXCO

Recommend the ExCo to approve the Task Status Update Report.

# 9. PARTICIPATING COUNTRIES

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

# Task 24 – CLOSING THE LOOP – BEHAVIOUR CHANGE IN DSM: FROM THEORY TO PRACTICE – TASK STATUS REPORT

Task Status Report

#### **Operating Agent(s):**

Dr Sea Rotmann, Operating Agent, New Zealand <a href="mailto:drsea@orcon.net.nz">drsea@orcon.net.nz</a>
Dr Ruth Mourik, Operating Agent, Netherlands <a href="mailto:ruth.mourik@duneworks.nl">ruth.mourik@duneworks.nl</a>

Download or view Task 24 proposal for an extension

#### 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 potential extension, will help address these difficulties and come up with guidelines, recommendations and examples of best (and good) practice and learnings from various cultures and contexts. We rely on sector-specific experts (researchers, implementers and policymakers) from participating and interested countries to engage in an interactive, online and face-to-face expert platform and contribute to a comprehensive database of 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. The Task has several deliverables, the most important being the expert network and platform for continued exchange of knowledge and successes and the large-scale analysis of the helicopter overview and case studies.

# 2. OBJECTIVES FOR THE LAST SIX MONTHS

#### Subtask 1

- All information from the 'Monster' to be put on a wiki (www.ieadsmtask24wiki.info)
- A storybook of the most outstanding examples and recommendations to be printed
- The energy experts' own energy stories to be edited into a short film and presented at Task 24 workshops in Wellington and Oxford
- More case studies from newly joined countries keep coming in (Austria has now sent all its case studies, we are still waiting for three from Italy and Belgium and have received nothing from South Africa so far. Other countries, like Canada and the UK continue giving us cases as well)

#### **Progress towards Subtask objectives**

Progress in last six months was very satisfactory, except for some of the outstanding countries' missing cases which hold up analysis and finalisation of the 'Monster' (although it will continue as a living document and wiki for the Task extension). 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. When the wiki is finalised, it will be sent to the AB for comment. The storybook has had great reception around the world at various conferences and workshops (several have been 'stolen') and the energy experts video was received very well at workshops in Wellington and Oxford and 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).

# Subtask 2

- Collection of detailed case studies and best practice in four overarching themes
- Includes (filmed) interviews in the Netherlands, New Zealand, Belgium
- Analysis of case studies so far collected (Italy and South Africa to happen later in the year

#### **Progress towards Subtask objectives**

Progress in last six months has been good - NL, NZ and NO have now completed their detailed ST2 country case studies. NL and NZ looked at similar pilots in the smart meter/feedback area, which provides good comparative material. NO looked at a fascinating case in an SME that became the world's cleanest ferro-silicon plant. SE (on the Stockholm congestion pilot), CH (on the 2000 Watt Society) and AT (on €CO2 Management and the Energy Neighbourhoods 2) are nearing completion. Italy's case study interview will be conducted in the October Milan workshop and Belgium will be conducted with a new National Expert. South Africa has not signed its NPP and we are at threat of losing the National Expert to do the work for us.

#### Subtask 3

- 7. Tool to enable better evaluation of successful behaviour change outcomes depending on the stakeholder point of view
- 8. Partly based on 'Beyond kWh' paper by Karlin and Ford (2013)
- 9. Partly based on review of evaluation literature and Oxford Task 24 workshop

#### **Progress towards Subtask objectives**

Progress in last six months has been very good, the 'Beyond kWh' methodological review has been completed and it is now in analysis stage. Duneworks have undertaken a detailed review on evaluation and discussed their issues with experts at the Oxford Task 24 workshop (Sept 5), where very valid insights have led to a strong framework for the final draft report which will be discussed in the Graz workshop before the next ExCo meeting. It became very obvious that this work is extremely difficult and needs more in-depth attention. A separate Subtask in the extension proposal (ST9) with Beth Karlin as lead investigator, is thus planned for the 'Beyond kWh' tool to become something akin to an international standard of how to evaluate the pathway of behavioural change when a kWh change before and after an intervention has been observed.

#### Subtask 4

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

#### **Progress towards Subtask objectives**

Progress in last six months was satisfactory, we have now collected more country stories from South Africa at the Wellington workshop and will finalise the collection from Italy (Milan workshop, October 3) and Austria (Graz, October 13). Country-specific recommendations have been collected, in part, via stakeholder feedback questionnaires (both during workshops and as part of SurveyMonkey after) and will be pulled together by the end of the year. Both, the Italy and Austria workshops will continue to collect stakeholder feedback.

# Subtask 5

- > 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 >220 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. All ST2 reports and a report on ESCo Facilitators, written for Task 16, are also on the ning site. 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 2 Spotlight articles, one article on ESCo Facilitator paper for the largest energy efficiency in industry magazine (EE-IP) and the Dutch ESCo network published it as well, one paper on Task 24 published and presented at IEPPEC, one presentation on Task 24 storytelling at BEHAVE, another presentation at the NERI conference and IEA DSM storytelling workshop in Wellington and Task 24 was represented by one of our UK experts at a special panel at the largest (10000 people) conference on psychology in the US (APA in Washington, August 7-10). Also chaired BEHAVE session on gamification and social media and was in two summarising panels at BEHAVE and IEPPEC. Task 24 was directly mentioned in keynotes by Philip Selwood, Head of UK's Energy Savings Trust (BEHAVE) and Maria van der Hoeven, Head of IEA (IEPPEC).

# Experts meetings/seminars/conferences held in the past six months

**Experts meetings** 

Date	Place	# of Experts	Type of meeting	Government	Industry	Academic
March 17	Wellington, NZ	55	Workshop	25	15	15
Sept 5	Oxford, UK	18	Workshop	2	3	13
Feb & July	Wellington, NZ	5	Stakeholder update	3	2	
Oct 3	Milan, Italy	10	Workshop			
Oct 13 & 14	Graz, Austria	>25	Workshop			

# Seminars/Conferences

Date	Place	Partcipants	Type of meeting	Government	Industry	Academic
March 18	Wellington, NZ	>100	NERI Conference	>20	>20	~60
May 12	Brisbane, AUS	15	Task 24 presentation	13	2	
May 12	Brisbane, AUS	12	IEC Lecture		2	10
August 8	Washington, US	<100 (out of 10000)	APA conference			mostly
Sept 4	Oxford, UK	<300	BEHAVE conference			
Sept 11	Berlin, Germany	180	IEPPEC conference			
Oct 10	Brisbane, AUS	>10	Skype Lecture IEC			mostly

# Reports produced in the past six months

- 2 IEA DSM Spotlight Issues
- Energy Expert Stories short film (youtube)
- Filmed presentations from Storytelling workshop in Wellington (youtube: <a href="http://www.youtube.com/user/DrSeaMonsta/videos?flow=grid&view=0">http://www.youtube.com/user/DrSeaMonsta/videos?flow=grid&view=0</a>)
- Storytelling Pecha Kucha presentation (slideshare: <a href="http://www.slideshare.net/drsea">http://www.slideshare.net/drsea</a>)
- Analysis of Subtask I 'the Monster' (160pp report, wiki)
- The Little Monster storybook (booklet)
- ESCo Facilitators report for Task 16
- Article for EE-IP
- Paper for IEPPEC
- Three ST2 country case study reports (NL, NZ, NO)

# 3. OBJECTIVES FOR THE NEXT SIX MONTHS

# Subtask 1

Finalise the 'Monster' and wiki with remaining case studies and analysis

#### Subtask 2

Finalise country reports from Sweden, Austria, Switzerland, Belgium, Italy (South Africa?)

#### Subtask 3

Finalise 'Beyond kWh' analysis of methodology review and evaluation report

#### Subtask 4

Finalise country stories and country-specific feedback and stakeholder analyses

#### Subtask 5

Continue expert platform for Task 24 extension

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

#### Planned Experts meetings

Date	Place
October 23	London, UK
October 22	Sheffield, UK
March 2015	Capetown, SA

#### Planned seminars/conferences

Date	Place
March 2015	Capetown, SA

#### Reports planned for the next six months

DSM University webinar; 5 more country-specific case study ST2 reports; Monster finalised; ST4 recommendations; ST3 report; Storytelling publication; ECEEE summer study publication; 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 attendees who know us or the Task in various international behaviour and energy conferences (such as BECC, BEHAVE, ECEEE, IEPPEC). The IEA Secretariat and Energy Savings Trust and UKERC gave us really great shout-outs during their keynotes at some of these conferences. We usually get invited to chair sessions and be part of plenaries and panel discussions. Our social media reach is very wide - tweets by @DrSeaRotmann usually reach an audience of over 40,000. 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 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 met with really strong support and very positive feedback. Maria van der Hoeven, Head of the IEA, took on our idea of 'changing the behaviour of the behaviour changers (by supporting them)' in her keynote address to IEPPEC in Berlin in September 2014.

# 5. IDEAS FOR NEW WORK

Our Task 24 extension work programme is ready to go and we hope to get funded to start in January 2015.

# 6. FINANCE

Budget is on track. Austria's second payment and all of South Africa's are still outstanding.

Income	Cost
Country participation:	Person months
NL €40,000 (finished)	Sea Rotmann 32pm
SE €40,000 (finished)	Ruth Mourik 16pm
NZ €40,000 (finished)	The same are supplied to the same are supplied
NO €40,000 (finished)	€216,000
CH €40,000 (finished)	,,,,,,,
BE €40,000 (finished)	
IT €40,000 (finished)	
AT €20,000 (20K outstanding)	
SA all outstanding	
€300,000	
In-kind:	Travel and web development, video,
UKERC Meeting Place	incidentals:
Oxford Workshop contribution	
€40,000	Sea Rotmann €54000
	Ruth Mourik €12000
NZ Workshop contributions (x2)	
NZ\$3600	€66,000
NZ\$5000	
Energy Savers Dubai Workshop contribution	
Approx €1000	
In-kind expertise from non-participating countries:	
Over 20 weeks expert time	

# 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 end of December 2014 as there are now 8+ countries participating (at no extra cost to participating countries). A 3-year Task extension is planned to 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
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 Task Status Update Report.

Please note that we had serious issues getting a final contract and payment from South Africa. It is thus unclear if SA will actually be part of Task 24. If that still is the case, the Task will have to be extended automatically (for SA input mainly) until at least after the ExCo in March 2015 in SA. We will work towards finalising everything else by the end of the year, though very late entry and submissions from Italy, Belgium and Austria and some lack of engagement from some national experts have meant a lot of extra (unpaid) work for the OAs and time delays that are completely out of our hands.

# 9. PARTICIPATING COUNTRIES

Austria
Belgium
Italy
Netherlands
New Zealand
Norway
Sweden
Switzerland
UK (in kind only)
South Africa (not finalised)

# TASK 16 – INNOVATIVE ENERGY SERVICES – PHASE 3 – ENERGY EFFICIENCY AND DEMAND RESPONSE SERVICES – TASK STATUS REPORT

Task Status Report

#### **Operating Agent:**

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#### 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 SINCE LAST REPORT

# Subtask 13 - Energy Service Expert Platform

*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 16<sup>th</sup> experts meeting, held in Belgium May 7-9 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 17<sup>th</sup> experts meeting, to be held in Seoul, Korea in October 23-24 2014.

# Subtask 13 + 17 – Stakeholder workshops

*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**

- 16<sup>th</sup> stakeholder workshop held in Belgium May 7 2014:
  - Morning session: "How to overcome the barriers for retrofitting large private and public building stocks" in cooperation with Belesco
  - Afternoon session: "Project and market facilitation" and "European Code of Conduct for EPC Providers" organized jointly with the European 'EESI 2020' and 'Transparense' projects
- Preparation of the 17<sup>th</sup> Task 16 stakeholder workshop to be held in Seoul, Korea on October 22 2014:

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

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

#### **Progress towards Subtask objectives**

- Finalization and publication of a peer-reviewed paper on Simplified measurement & verification + quality assurance instruments for energy, water and CO<sub>2</sub> savings. Methodologies and examples published at eceee Industrial Summer Study, paper ID 1-088-14, Arnhem, the Netherlands June 2014
- Finalization and publication of an IEA DSM Task 16 discussion paper *ESCo project and market development:* A role for 'Facilitators' to play. Including national perspectives of Task 16 experts
- Commissioning of a Task 24 discussion paper on practical guidance for Change Management, titled: The life of ESCo Project Facilitators. If only the client knew, understood, trusted, cared and was engaged ...
- Work continued on business models for comprehensive building refurbishment ('deep retrofit') in cooperation
  with IEA ECB Annex 61: Further development of an economic feasibility evaluation tool including sensitivity
  analyses for deep retrofit application

# **Subtask 15 - Demand Response Services business models**

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

#### **Progress towards Subtask objectives**

- Analyses 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
- Analyses of potential end-use sectors in Austria and preparation of a cement industry business case study (by e7)

# Subtask 16 - Coaching of individual National Implementation Activities (NIA)

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 – Dissemination and cooperation**

*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.:

- ESCo introduction training in Lahore, Pakistan (March 2014)
- Publication and presentation of 'Simplified M&V paper' @ ECEEE Industrial Summer Study (June 2014)
- Economic evaluations to communicate between technicians and management. Methods, calculation and examples an introduction. Seminar for energy technicians in industry (June 2014)
- Two ESCo manager trainings in South Africa in cooperation with SANEDI and SAGEN: Investment grade Calculation, Analyses & Financing of ESCo Projects (for EPC and ESC Business Models). Introduction & hands-on training in Johannesburg and Capetown (Aug. 2014)
- Co-operation with other ongoing energy service projects
  - ECB Annex 61 => Deep retrofit: Economic feasibility and business models
  - 'EESI 2020' lead by BEA and 'Transparense' lead by sEVEN

- IEA IETS Annex 16 Energy Efficiency in SMEs => IEC model
- Linköping university => ES taxonomy

# Subtask 18 - Management and Reporting

Objective: Project management and reporting

# **Progress towards Subtask objectives**

- no particular activities in addition to regular work

# Experts meetings/seminars/conferences held in past six months

**Experts meetings** 

Date	Place	# of	Type of	Govern-	Industry	Academic
		Experts	meeting	ment		
8-9 May 14	Antwerp Belgium	12	Experts	4	6	2
			meeting			

# Seminars/Conferences

Date	Place	Partcipant	Type of	Govern-	Industry	Academic
		S	meeting	ment		
04 April 14	Vienna, Austria	14	seminar	5	9	0
7 May 14	Brussels Belgium	50	T16	10	35	5
			Stakeholde			
			r workshop			
11-13	Lahore Pakistan	45	Workshop	7	35	3
March 14						
04 June 14	Arnheim,	35	summer	5	15	20
	Netherlands		study			
26 June 14	Gmunden, Austria	25	seminar	0	25	0
18-20 Aug	Johannesburg +	28	seminar	1	24	3
25-27 Aug	Capetown, SA	19	seminar	0	18	1

#### Reports produced in the past six months

- Simplified measurement & verification + quality assurance instruments for energy, water and CO<sub>2</sub> savings.
   Methodologies and examples published at ECEEE Industrial Summer Study, paper ID 1-088-14, Arnhem, the Netherlands June 2014
- ESCo project and market development: A role for 'Facilitators' to play. Including national perspectives of Task 16 experts IEA DSM Task 16 discussion paper
- The life of ESCo Project Facilitators. If only the client knew, understood, trusted, cared and engaged ... Task 24 discussion paper

# 3. OBJECTIVES FOR THE NEXT SIX MONTHS

# **Subtask 13 – Energy Service Expert Platform**

- Execution of the 17<sup>th</sup> experts meeting, to be held in Seoul, Korea in October 23-24 2014. 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 18<sup>th</sup> experts meeting, to be held either in France (back to back with ECEEE summer studies) or in Switzerland in spring 2015 (exact date tbd)

#### **Subtask 13 + 17 – Stakeholder workshops**

- Execution of the 17<sup>th</sup> Task 16 stakeholder workshop to be held in Seoul, Korea on October 22 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 18<sup>th</sup> Task 16 stakeholder workshop to be held either in France (back to back with ECEEE summer studies) or in Switzerland in spring 2015 (exact date and topic tbd)

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

- Continue work on Task 16 discussion paper Simplified measurement & verification + quality assurance instruments for energy, water and CO<sub>2</sub> savings. Methodologies and examples. Including examples and national perspectives of Task 16 experts
- Continue work on business models for comprehensive building refurbishment ('deep retrofit') in cooperation
  with IEA ECB Annex 61: Further development of an economic investment grade and financing evaluation tool
  including sensitivity analyses for deep retrofit application
- Drafting of a *Taxonomy paper on Energy Services* to be published in a peer-reviewed journal in cooperation with Linköping university

# **Subtask 15 - Demand Response Services business models**

- Continue data collection on DR-potentials in selected end-use sectors, implementation cost and balance power market products in preparation of DR-ES business models.
- DR-Services: Identification of a Korean expert (and possibly others) => Ideas for other resources or cooperation opportunities from ExCo members are still welcome
- Preparation of an abstract on *Economic feasibility of DR business models* for submission to ECEEE summer study and/or 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 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
- Economic evaluations to communicate between technicians and management. Methods, calculation and examples an introduction. Seminar for energy technicians in industry (Nov. 2014)
- Continuation of know how transfer and supervision for a start-up ESCo in Croatia
- 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)
- 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 PMD)

# **Experts meetings/seminars/conferences planned in the next six months Planned Experts meetings**

Date	Place
23-24 Oct 2014	Seoul, South Korea
May/June 2014 (tbd)	France or Switzerland (tbd)

#### Planned seminars/conferences

Date	Place
22 Oct 2014	Seoul, South Korea
12 Nov. 2014	Vienna, Austria
27 Nov. 2014	Gmunden, Austria
24. Dec. 2014	Lahore, Pakistan
19-21 Jan. 2015	Milano, Italy
January 2015	Pinkafeld, Austria

# Reports/Publications planned for the next six months

- IEA DSM Task 17 discussion paper: Simplified measurement & verification + quality assurance instruments for energy, water and CO<sub>2</sub> savings. Methodologies and examples. Including examples and national perspectives of Task 16 experts
- Report on Economic feasibility of deep retrofit energy services in cooperation with IEA ECB Annex 61
- First draft for a Taxonomy paper on Energy Services for internal discussion
- First draft of a paper on Economic feasibility of DR business models
- contributions to IEA DSM Spotlight and other shorter formats

# 4. OUTREACH

Please refer to detail list in previous sections. Two highlights are:

- The two hands- on trainings on 'Investment grade calculation and financing' in South Africa were particularly appreciated by the audience. They were also appreciated by two finance corporations (IFC and IDC) and may possibly result in further co-operation. A third idea, which emerged from the discussions is to look into crowd-financing in order to bridge in particular the mezzanine financing gap of EE and RES investments
- Also the 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 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 August 2014)

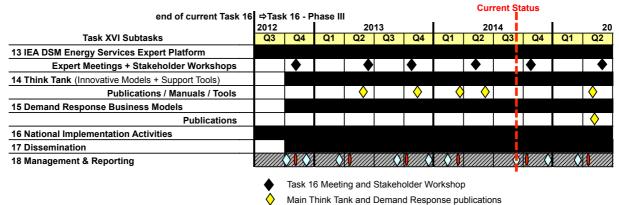
<b>Subtask</b> unit	<b>Total</b> <b>budget</b> EUR	Cumulative spending EUR	% spent %	<b>Remaining</b> EUR
13 Energy Services Expert Platform	36.000	25.200	70%	10.800
14 Energy Services Think Tank	87.000	62.000	71%	25.000
15 Demand Response ES Business Plans	27.200	11.200	41%	16.000
16 Coaching of National Implementation Activities	12.800	9.200	72%	3.600
17 Dissemination (Internat. + Nat.)	13.000	10.000	77%	3.000
18 Management & Reporting	42.000	26.400	63%	15.600
Subtotals	218.000	144.000	66%	74.000
Travel costs	28.000	19.200	69%	8.800
Printing&other	9.000	6.400	71%	2.600
Totals	255.000	169.600	67%	85.400

The total spending of last six month was 49,700 EUR adding to total expenditure of 169,600 EUR, which equals 67 % of the total budget.

The income during last reporting period was 14,985 EUR (against 29,985 EUR billed). This adds to a total realized income of 149,985 EUR against a total budget of 255,000 EUR.

# 7. ACTIVITY TIME SCHEDULE

Task 16-Phase III Timetable (as of August 2014)



ExCo Meeting

Time wise we have spent 26 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 Netherlands, Sweden and Switzerland (in alphabetical order).

# TASK 16 – OUTLINE FOR PHASE IV - INNOVATIVE ENERGY SERVICES – ENERGY EFFICIENCY AND DEMAND RESPONSE SERVICES

Outline for Phase 4 (2015-2018)

International Energy Agency
Demand-Side Management Programme:

Promoting Energy Efficiency and Demand Side Management for global sustainable development and for business opportunities

www.ieadsm.org

# Task 16: "Innovative Energy Services".

# Energy Efficiency and Demand Response Services Outline for Phase IV (2015-2018)

# 'Delivery mechanism' for energy policy targets and market development

The success of further increasing energy efficiency will play a vital role in coping with the challenges of our common energy future. Avoiding energy consumption by increasing end-use efficiency is a highly effective means to meet all three key targets of energy policies: Security of supply, affordable costs of energy (services) and environmental soundness.

Performance-based energy services (ES) - also referred to as Energy-Contracting or ESCo service - is a many times proven 'deliver mechanism' for implementing energy efficiency measures such as lighting, HVAC or building refurbishment. An ESCo takes over the technical and economical implementation risks and provides performance guarantees for the results. ES are also well suited to implement renewable energy systems with guaranteed

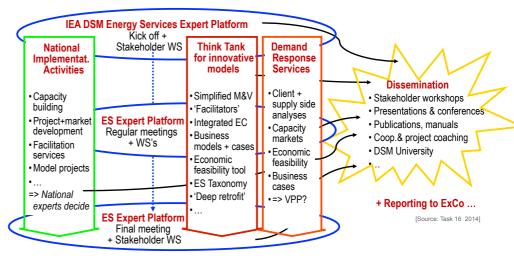
- support and follow up country specific national implementation activities (NIAs) in order to foster ESCo project and market development,
- design, elaborate and test innovative energy and demand response services and financing models and publish them (Think Tank),
- use the Task's Energy Service Expert Platform as a competence centre for international and national dissemination and assistance services (e.g., coaching, training),
- 5. contribute to the "DSM University".

# Task objectives (Phase IV)

outputs.

To further contribute to the know how and market development of ES, Task 16 is working to:

 sustain the well established IEA DSM energy services expert platform for exchange and mutual support of experts, partners & invited guest,



#### Subtasks, structure and schedule

The work is structured as follows:

Figure 1: Task 16 structure and sub tasks

Subtask 19: ES Expert Platform

Subtask 20: ES Think Tank

Subtask 21: National implementation activities (NIAs)

Subtask 22: Demand Response services

Subtask 23: National and international dissemination, DSM university

Task 16 is working since July 2006 and is now preparing a *three-year extension from July 2015 to June 2018 (Phase IV)*.

In Phase IV, new work is planned on: Deep retrofit of buildings (economic feasibility, investment grade calculation and financing, business models incl. Non-Energy-Benefits); Demand response services and VPP (market analyses, economic feasibility), an ES Taxonomy journal paper and further contributions to the DSM university (among others).

The detailed work program of Task 16 will be adapted to suit the needs of the participating countries. Specific national implementation activities are defined according to the individual country and market situations. Ongoing activities can be integrated into the NIA's.

# **Expected results**

Participating countries will benefit from:

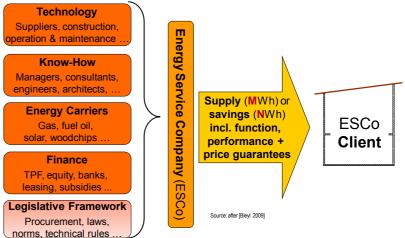
- Experience exchange, feedback and coaching for country specific market development activities (NIA's)
- Gaining know-how and building capacity on innovative energy services and financing models from the Think Tank
- ✓ Demanding the OA to prepare selected Energy-Contracting issues of interest
- Participating in the IEA DSM Energy Services Expert Platform and communication with external stakeholders
- ✓ Task 16 will play an active role in the national and international dissemination of innovative ES and offer assistance services for market development in other countries
- Contributions to the IEA 'DSM University'

And last but not least: Enlarging the market for energy services and developing business opportunities for nationally and internationally acting ESCOs and consultants.

Figure 2: Components of service packages and outsourcing of interfaces and performance quarantees to an ESCo

Resources: Cost + task sharing

Cost sharing: 14,500 EUR/a,



Task sharing: 0.5 - 1 person month/a over a period of three years.

### Task 16 participants (Phases I-III)

Austria: GEA, Energetic Solutions; Belgium: Fedesco, energinvest, Factor4; Finland: Motiva; India: BEE; Japan: JFS/Tepco; Korea: Korea Energy Management Corporation, Jeonju University; Netherlands: Essent, escoplan; Spain: Red Eléctrica de España, Hitachi Consulting; Sweden: Swedish Energy Agency, Switzerland: Swiss Federal Office of Energy

#### **Contact and Operating Agent**

Jan W. Bleyl - Energetic Solutions Lendkai 29 8020 Graz, Austria *or* Frankfurterstr. 12, 76344 Leopoldshafen Germany, EnergeticSolutions@email.de, Tel. +43 650 7992820

# TASK 25 - BUSINESS MODELS FOR A MORE EFFECTIVE MARKET UPTAKE OF EE ENERGY SERVICES – TASK STATUS REPORT

Operating Agent:

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5625 NN
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The Netherlands
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Ruth.mourik@duneworks.nl

#### 1. SUMMARY

This Task will focus on identifying, analysing and creating effective business models<sup>7</sup> providing viable DSM value propositions that lead to the growth of the demand market for energy efficiency. The client and buyer perspective, in particular of SMEs and communities is central to this task. In addition, this task will focus on identifying and supporting the creation of energy ecosystems in which these business models can succeed. This task will explicitly seek cooperation with relevant stakeholders in the participating countries.

Download or view the Task Work Plan.

#### 2. OBJECTIVES FOR THE LAST SIX MONTHS

This Task is still in the predefining stage, and thus not yet officially started. We therefore only worked on subtask 0 which is about enthusing countries to participate in the Task, and creating a work plan.

# **Subtask 0: Pre-scoping**

The focus of this task is 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 is 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 will be available mid-September.
- 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 Executive Committee meeting in 2014: completed.

#### Subtask 1

Not yet started

#### Subtask 2

Not yet started

#### Subtask 3

Not yet started

#### Subtask 4

Not yet started

<sup>&</sup>lt;sup>7</sup> With business models we refer to the rationale of how an organization creates, delivers and captures value. We work with the business model canvas as developed by Alexander Osterwalder and enhanced by others. This canvas comprises 9 building blocks: resources, value propositions, customer relationship, revenues, partners, channels, cost structure, customer segment, key activities.

#### Experts meetings/seminars/conferences held in past six months

#### **Experts meetings**

None yet

#### Seminars/Conferences

Date	Place	Partci-	Type of meeting	Govern-	Industry	Academic
		pants		ment		
10-06-	Brussels-	mixed	Energy Demand-Side	16	66	10
2014	Belgium		Management in Belgium			
			in the context of the EU			
			Energy Efficiency			
			Directive and beyond:			
			how can IEA DSM help?			
			-			

#### 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

#### 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

- Developing a typology of existing energy service business models based on quick scan of available business models in participating countries and beyond.
- In-depth analysis of country specific markets and policies for energy services and their influences on business models
- Identifying country specific services, service providers and their stakeholder networks and selecting top three most interesting services, providers.
- In-depth (comparative) analysis of business models and stakeholder value flow and conductive factors. Determining patterns, drivers and pitfalls
- Analyze acceptance and effectiveness of these energy services and their business models in creating
  lasting load reduction, shifting or generation and other non-energy benefits and in creating a market (e.g.
  job creation, new business development).
- Organising country workshops with service providers and clients to undertake the selection and indepth analysis
- Creating a database with all found services and accompanying business models including useful formats such as contracts 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
Januari 2015	To be determined
June 2015	eceee conference France

#### Reports/Publications planned for the next six months

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.

In addition we will potentially present this task at the eceee conference in June 2015

### 4. OUTREACH

We will organise different Skype meetings with funders and have meetings planned with potential funders for our Task.

# 5. IDEAS FOR NEW WORK

NA

# 6. FINANCE

The operating agents received a pre financing of 7500 euro, which has been spent in last six months.

# 7. ACTIVITY TIME SCHEDULE

Task not started yet, so no changes to planning. Task is planned to start in November 2014

# 8. MATTERS FOR THE EXCO

Recommend the ExCo to approve the Task Status Update Report.

#### 9. PARTICIPATING COUNTRIES

Switzerland European Copper Institute

#### **Interested countries**

Austria Netherlands Sweden UK Norway?

#### VISIBILITY COMMITTEE REPORT

Prepared by: Dr. Sea Rotmann, Visibility Committee Chair

#### **Annual Report**

The 2013 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 (280) have been sent out in March 2014 to the EUWP, EEWP, Executive Committee Members and Operating Agents. 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 Theme Chapter of the 2014 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 <a href="mailto:anne.bengtson@telia.com">anne.bengtson@telia.com</a> and/or the Visibility Committee. In particular, we would be interested to know how useful the social network links are.

#### **Statistics from Solstice**

#### **Total website hits:**

March 2013 - February 2014 - 1 279 231 visitor hits March 2014 - September 2014 - 878 186

#### Hits per day:

March 2013 - February 2014 - 3504 per day March 2014 - September 2014 - 4326

#### Average time on website:

March 2013 – February 2014 – 3 mins and 46 seconds March 2014 – September 2014 – 4 mins 23 seconds

Downloaded reports for Tasks – see attachments section.

#### Issues

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

#### **Website Tender**

At the ExCo meeting in Wellington, New Zealand the Executive Committee approved sending out a Tender for a new DSM IA Website Design and Branding. In June 2014 the Tender was passed around to Executive Committee members for information and comments and on June 13 the Tender was sent out to 6 companies. The companies were:

- 1. Björkman & Mitchell Design, Sweden
- 2. WeberWeb, Australia
- 3. Multitask ICT, the Netherlands
- 4. WispGroup, Poland
- 5. Solstice, United Kingdom
- 6. TamTam, the Netherlands

3 companies were not interested in tendering and the companies that did reply to the Tender were:

- 1. Björkman & Mitchell Design
- 2. WeberWeb
- 3. Mutitask ICT

The evaluation committee consisting of:

Rob Kool, Chairman

Sea Rotmann, Visibility Committee Chair, and

Hans De Keulenaer, DSM IA Executive Committee member, The Copper Institute

decided on 7 August, 2014, during a conference call to choose WeberWeb, based on their experience, earlier output and price.

A Ballot was sent around for Executive Committee approval of the expenditure of USD 44,263 from the Common Fund.

#### Issues

1. Members should review the website regularly and update their own work/interests

# **Spotlight Newsletter**

In 2014 four DSM Spotlight newsletters will be published in total.

To date the following 2014 newsletters have been published and are posted on the DSM website:

- Issue 52/ February 2014
- Issue 53/ May 2014
- Issue 54/ to be published September 2014
- Issue 55/to be published December 2014
- Issue 56/March 2015
- Issue 57/June 2015

The next issue will be published in September 2014

#### **Articles in Issue 52: – February 2013**

- ECI: Flexible Industrial processes: A Valuable Tool To Accommodate Big Scale Variable Renewables
- Note from the Chairman: Inspiration from a legend
- New Work: Business Models For A Better Uptake of DSM Energy Services
- Finland: Demand Response in Finland: A Retail Perspective
- •The New Zealand Treasury looks to the Demand Side

#### Articles in Issue 53 - May, 2014

- Task 24: Is Storytelling The Answer o Many of Our (Translation) Problems?
- Note from the Chairman: The Dawn of Information
- Task 16: Energy Services Stakeholder Day
- DSM University: A Task for the DSM University
- Task 21: Harmonisation of Energy Savings Calculations

NERI - The Energy Conference 2014: Going Further with Energy

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 for the remainder of 2014 and in 2015. In 2014 the Editor looks forward to highlighting not only the Task work, but also DSM work in the Member countries.

Pam reports: The VC may want to think about another format for the newsletter - e.g., electronic with shorter articles and links. The past 2 newsletters have been tough getting articles. People seem to be getting busier and busier. For example Matthias has promised something for almost a year but the time is never right.

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 2013, it is proposed that the same be done in 2014.

#### **Brochure**

Comments on the format, style and content of the brochure and the inserts are welcome. The inserts were last updated in March 2014.

#### Issues

Please provide comments on the brochure and its contents at the October 2014 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 124 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 181 followers and 556 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. If we start filming some Executive Coimmittee workshops, this would be a great channel to distribute visual information fast.
- IEA DSM Task 24 Expert Platform 200+ members, invite-only (<a href="www.ieadsmtask24.ning.com">www.ieadsmtask24.ning.com</a>). 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, average page view for new visitors is 9 minutes 05 seconds. The platform is also linked to a dropbox, a Wiki and a Twitter account and includes 102 videos, 75 photos, 6 blog posts, over a dozen discussions, all events associated with the Task, 2 Subtask Groups and member chat and email functions and all expert's short biographies and interests.

#### **Communications Plan and Dissemination Strategies**

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

Dr Sea Rotmann

Visibility Committee Chair

# DRAFT COMMUNICATIONS PLAN FOR IEA DSM IMPLEMENTING AGREEMENT

Prepared by Dr Sea Rotmann, Visibility Committee Chair March 2014, finalised September 2014

#### 1. SUMMARY

This Communications Plan was created in order to aid the IEA DSM Implementing Agreement (called 'DSM IA' or 'the Programme' from now on) in our communications activities and planning. The current status of communications is adequate but can certainly be improved upon, befitting a programme of this size and scope. Even though we have a large number of visitors on our website (allegedly over 1 million hits per year<sup>8</sup>), thus showing the significant global interest in the Programme, we can still do better in terms of the web interface, user friendliness and dissemination of our results.

The communications objectives are to increase our impact, both globally and within the IEA Secretariat and other Implementing Agreements and to disseminate our many valuable results to the right audience in the most relevant manner. The DSM IA Executive Committee (ExCo) meets twice a year in different member countries, and organises a workshop before each ExCo meeting inviting relevant national DSM experts from different sectors to introduce some of their work and learn about the DSM IA and its various Tasks. For these meetings we develop a Pre Meeting Document (PMD) with the meeting agenda, all Task status reports and new Task proposals and other important business. Following the meetings we release short meeting minutes (within 1 month of the ExCo), extensive meeting minutes (within 3 months of the ExCo) and an annual report (end of year) which gets disseminated among our closest stakeholders.

Our communications responsibilities to the IEA and the CERT go further than this - every 5 years we have to apply for a 5-year extension of the DSM IA and develop a work programme and future strategy. Each ExCo member has certain communications responsibilities to their national governments and stakeholders. Each Operating Agent has to write at least: two annual Task status update reports, one annual report, update their Task website and flyer and write articles for the Spotlight Newsletter. In addition, they should widely disseminate their work in each of their participating countries, at conferences and seminars, in scientific journals and magazines, via social media and during national expert workshops.

As feedback measures and success criteria we use website visitor and social media stats, numbers of participants at ExCo meetings and workshops; Task workshops and Task exposure at international and national conferences and seminars. Audience numbers get recorded, where possible, for each event. We also have over 6000 names on our contact and mailing list and hold additional face-to-face meetings between particularly our Chair and Advisor and interested stakeholders and countries.

The DSM IA has so far operated without a formal communications plan, which probably created a small risk in terms of ensuring that an official way of reporting and dissemination is widely known among the responsible actors (ExCo, OAs, national experts etc). The CERT and EUWP has made some valid criticism of some of our reporting and communications functions, which this Plan is attempting to address and remediate. The biggest issue the Programme faces is how to move from the old thinking of how things have been done, and done well - to a more responsive way of communicating to deal with rapidly changing landscapes including the huge rise of

<sup>8</sup> This could have been mis-reported as website hits, rather than unique visitors, which seem to be fewer than 10,000 per year.

social media and networking, more restricted country budgets and expectations to do more for less, much faster news cycles and shorter interest spans and more competition for funds and news in a global arena. These are exciting times and this Implementing Agreement and its members are keen to play their parts in them. Our work is more relevant than ever and needs to be disseminated and communicated as rapidly, relevantly and widely as possible.

#### 2. INTRODUCTION

#### 2.1. Background

Vision and objectives for the organisation:

#### The vision of the DSM IA is that:

Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems.

This leads to the following overall objectives:

- to achieve large-scale energy efficiency improvements by deployment of existing and improved technologies taking into account the insight of social studies together with analysis of energy systems in technical, business, market and regulatory contexts.
- to develop, improve and promote business, behavioural and operating models that enable the (energy) market to deliver the services from energy in a clean, undisrupted and economically effective way.
- to support applied research as necessary to fill knowledge gaps on the previous two points, in order to increase the deployment and efficient use of technologies.
- 1. Goals, timeframes, purpose and scope of your projects: Every 3 months Spotlight Newsletter<sup>9</sup> (sent to ExCo, OAs and interested persons and uploaded on website) and DSM University webinars; every 6 months Task status reports<sup>10</sup>, ExCo PMD and meeting minutes<sup>11</sup> plus a 2-pager on Programme evaluation<sup>12</sup> to EUWP; every year Annual Report<sup>13</sup>, Strategic Plan<sup>14</sup>; every 5 years request for extension and work programme for next 5 years to EUWP; as relevant Task reports and publications

Professionals from IEA member and non-member countries

<sup>&</sup>lt;sup>9</sup> From PPG: To publish results, findings, accomplishments, topical issues and personal views for interested parties. The Spotlight newsletter will serve as a low-cost, widely distributed information vehicle to utility, industry, government executives and policy makers in their efforts to keep abreast with advances being made in the field of DSM and Market Transformation. The newsletter will be the arm to reach out to new audiences not continuously searching for this kind of information, but who have occasional interest during campaigns and conferences. The targeted audience of the Spotlight newsletter is:

<sup>•</sup> Professionals from participating countries – for example, government officials and policy makers at the international, national and local levels, industry and utility executives, senior program managers in international and national organizations,

<sup>•</sup> Researchers and engineers.

<sup>•</sup> Executive Committee members, Operating Agents and Task Experts.

<sup>&</sup>lt;sup>10</sup> From the Procedural Policy Guidelines (PPG): Written Task Status Report – The Operating Agent is responsible for distributing one copy of the written TSR to each Executive Committee member, Operating Agent, consultant and 2 copies to the Executive Secretary. The written TSR must be distributed so that it is received at least 3 weeks prior to each Executive Committee meeting.

<sup>11</sup> From PPG: The purpose of the Annual Report is to inform the IEA Secretariat and policy officials of the activities and accomplishments of

<sup>&</sup>lt;sup>11</sup> From PPG: The purpose of the Annual Report is to inform the IEA Secretariat and policy officials of the activities and accomplishments of the Programme during the year in question. The Annual Reports give a comprehensive overview of the entire Programme and its standing, its accomplishments, the people involved and the goals. Audience is ExCo, OAs and Desk Officer at the IEA and the Legal Office, EUWP <sup>12</sup> From PPG: The Executive Committee will initiate and conduct periodic management and/or technical

evaluations of the Programme as necessary. The ExCo will respond, as appropriate, to Programme evaluations initiated by the Secretariat or the IEA's End Use Working Party (EUWP).

From PPG: An Annual Report to the IEA Secretariat is required to inform IEA member countries and other interested parties of the progress in the DSM Programme during the preceding year. The Annual Report is due to the IEA no later than January 31 of each year.
 Responsibility for the preparation and submission of the Annual Report rests with the Executive Committee Chair. The Operating Agents have major contributions to make to this report. Needs to be sent to EUWP, EEWP, ExCo, OAs. Total print around 280.
 From PPG: In order to better communicate the policy framework for the Demand-Side Management Programme, and to guide its current

<sup>&</sup>lt;sup>14</sup> From PPG: In order to better communicate the policy framework for the Demand-Side Management Programme, and to guide its current Tasks and future new Tasks, the Executive Committee should consider the preparation of a strategic plan and to update it every 2-3 years.

- including conference proceedings, workshops and presentations; website updates<sup>15</sup>; social media discussions and announcements.
- 2. Current and past communications activities: See at 1. above plus we have regular face-to-face meetings with policymakers and potential sponsors and experts around the world. Each Task has several workshops with national experts per year<sup>16</sup> and undertakes its own dissemination activities. We also have regular reporting to the IEA Secretariat, CERT and EUWP.
- 3. Existing communications staff and stakeholders: Main staff are the Project Preparatory Committee (PPC) which consists of the IEA DSM Chair, Vice Chairs, Advisor, Executive Secretary and Visibility Committee Chair. There is also an Editor, who is largely responsible for flyers and Spotlight Newsletters and a web developer who maintains our website. All OAs also have certain communications responsibilities, as have the ExCo.
- 4. Current communications tools, activities and events: Reports, newsletter, column, ExCo meetings, Task workshops, seminars and conferences, scientific publications and magazines, some media releases, social media (twitter, linkedin, facebook, youtube, slideshare), website, webinars, DSM University, ning platform (Task 24), wiki (Task 24), contact email list (which needs to be updated)
- 5. Means of reviewing communications effectiveness: Website hits and Google Analytics; followers on social media, retweets and likes; downloads of reports; number of reports, flyers, brochures sent out or disseminated at meetings; journal citations; presentations at international conferences and seminars; number of attendees at workshops and conferences a Task was presented at; keynotes and panel chairing at (inter)national conferences; mid-term and end-term evaluations of Tasks; stakeholder evaluation by ExCo; EUWP evaluation of Programme; policy briefs and face-to-face meetings; media releases
- 6. Results of past communications surveys: no specific surveys on communications have been undertaken by the IEA DSM Programme.
- 7. Reasons for requiring more formal communications planning: We are already doing a lot, and are doing quite well at some things but the IEA CERT made specific comment on the influence and impact of IAs and how they needed to be able to show their effectiveness better. Main emphasis has been put on communications by the Governing Board<sup>17</sup>:
- <u>Policy relevance:</u> Do the IA results feed into policymaking processes in home countries? Are key data available in a format that can be used by policymakers? Are findings used in IEA analysis which feeds into policymaking processes? Are findings used in IEA Ministerial, G8 and other high level events?
- <u>Dissemination</u>: Has the work been adequately disseminated to participating countries, IEA member countries and the private sector? Has the IA contributed to IEA Secretariat efforts to promote the IAs activities, eg through the OPEN Bulletin? Is the IAs website complete and up to date?
- 8. Desired outcome of the communications planning process: To support our IA in its communications and dissemination activities to ensure the good work our IA and Tasks are doing are indeed used by relevant policymakers and other experts in our participating and wider IEA countries.

<sup>15</sup> From PPG: To give quick access to information, contacts and reports (downloaded) for people who are searching for such a purpose.

These people need up-to-date accurate information for a contact and will not have time to wait while it is shipped

<sup>&</sup>lt;sup>16</sup> From PPG: Task meetings are the primary vehicle for managing the Task's collaborative activities, and for reviewing the progress and planning of future work and associated deadlines. Each country participating in a Task is required to participate in each Task meeting with the appropriate Expert(s). Operating Agents are responsible for planning and organizing the meetings.

Task meetings should not normally be held less than 6 weeks prior to an Executive Committee meeting, so that the outcome of meetings can be properly reported to the Executive Committee in

the written Task Status Report

17 From Carrie Pottinger presentation: EUWP 6 CERT responses to the Governing Board conclusions.

#### 2.2 Situation Analysis

- Strengths: We are very good at what we are good at fulfilling our IEA reporting requirements on time and in great detail; website hits (see Table 1 below); presenting Tasks and work at international conferences and workshops; reports (see Table 2 below).
- Weaknesses: We need to improve the frequency that the information is distributed, and make the
  information more selective to the target audience. The website is currently being updated to be Web 2.0
  compatible and more user friendly and searchable, all Tasks need to use social media better and take
  part in the DSM University. Task reports need to be 'translated' into practical language for
  policymakers and distributed in the most relevant matter, eg policy briefs, face-to-face, OPEN Bulletin
  etc.
- **Opportunities:** There are great opportunities for improving awareness for the Programme, the DSM IA profile and public knowledge. We have a lot of scope to build support for our project activities, attract new Tasks and countries to join us and attract a wider audience and more experts to the IA.
- Threats: Our messages may not be interpreted as expected (eg by the EUWP), changes to the DSM IA culture are necessary in order to keep up with modern communication and a changing landscape, fighting for relevance e.g. with IAs like ISGAN.

Table 1. Website hits March 2012-February 2014<sup>18</sup>

March 2012 - February 2013		
Visitor Hits	Visitor Hits per day	Average time on website
1,103,866	3,024	3 mins 26 seconds
March 2013 - February 2014		
Visitor Hits	Visitor Hits per day	Average time on website
1,279,231	3,504	3 mins 46 seconds

Table 2. Detailed numbers (ranked highest to lowest) of report downloads

March 1st 2013 - February 18th 2014	
Task Name and Number	Views
Task 1 Subtask 8 - International Database on Demand-Side Management Technologies and	
Programmes	2,563
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	2,276
Task 24 - Closing the Loop - Behaviour Change in DSM, From Theory to Policies and Practice	2,170
Task 15 - Network Driven DSM	1,751
Task 17 - Integration of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy Sources	1,650
Task 14 - Market Mechanisms for White Certificates Trading	1,459
Task 22 - Energy Efficiency Portfolio Standards	1,283
Task 13 - Demand Response Resources	1,267
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	1,216
Task 5 - Investigation of Techniques for Implementation of Demand-Side Management Technology	
in the Market Place	988
Task 19 Micro Demand Response and Energy Saving	891
Task 21 - Standardisation of Energy Savings Calculations	870
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	765

<sup>18</sup> But see Google Analytics stats in Appendix 8.5 which suggest visitor numbers are several magnitudes lower (extrapolating from 6 months' stats).

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TOTAL	25,828
Task 12 - Cooperation on Energy Standards	226
Task 3 - Co-operative Procurement of Innovative Technologies for Demand-Side Management	356
Task 7 - International Collaboration on Market Transformation	386
for Kyoto's GHG Targets	462
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes	
Task 9 - The Role of Municipalities in a Liberalised System	564
Task 20 - Branding of Energy Efficiency	578
Planning	608
Task 4 - Development of Improved Methods for Integrating Demand-Side Options into Resource	
Task 2 - Communications Technologies for Demand-Side Management	629
Task 23 - The Role of Customers in Delivering Effective Smart Grids	706
Task 10 - Performance Contracting	710
Task 18 - Demand Side Management and Climate Change	711
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	743

#### 2.3. Lessons Learned

By describing how prior communications were undertaken by the DSM IA and any lessons learned, we can further "set the scene" for the communications activities that are needed to keep the right stakeholders informed, with the right information, at the right time.

- 1. Our current communications are: the website, including all Task reports (even current Tasks on website are often outdated and reports can be hard to find, links broken etc), ExCo meeting information (PMD and minutes) and annual reports; The Spotlight Newsletter which is downloadable but mainly sent (by email) to ExCo and OAs; the IEA DSM University has had several successful webinars already; the IEA EUWP reporting via request for extensions, work programme and strategy; some social media (twitter, linkedin and facebook groups) and some Tasks that have gone further (eg Task 24 which has strong presence on social media, an expert platform with over 200 experts, a youtube and slideshare channel, Mendeley Group etc).
- 2. The communications have been made in different ways: the Spotlight Newsletter is short, pithy and its key messages are related to newsworthy updates from the Tasks and ExCo. The Annual Report and Task Status Updates are factual and are meant to provide the same key information from each Task and the DSM IA to its main stakeholders (see a template of each in the Appendix). The Task Reports are sent out by OAs and downloadable from the website; they provide the key results and outputs from each Task (see download stats in the Appendix). The Website is the main repository for all information but its key messages are not always easy to find or in an attractive layout. The EUWP Reporting (strategy, request for extension, work programme for next 5 years) has important key messages that the survival of the DSM IA depend on, including its level of influence and importance; stretch and forward thinking; usefulness to policymakers etc. The social media presence is relatively new and key messages are to spread news, start discussions of current topics, create interest and excitement and share related websites, articles and blogs. The DSM University is an online gathering of Task information and expertise, the current main channels are Task-specific webinars.
- 3. The level of success of those messages: The Spotlight Newsletter struggles to get articles on time and in line with all the work the DSM IA is doing. It is not clear how successful its impact is as we don't have the download stats currently. The Annual Report and Task Status Updates are important documents to highlight all the key aspects of the Programme and its Tasks. It is not clear how successful they are in their messaging but they are absolutely essential and would be noted in their absence or with any reduction in quality (although discussion has been had at the 43rd ExCo to reduce the length of these

documents). The Task Reports are of varying quality and have varying successes in terms of download stats. Some Tasks that have long been closed (eg Task 1) have very high download stats, suggesting their relevance to our audience and potential need to revisit these topics. Other current Tasks, like Task 23 don't have any downloads as they are closed for 12 months until after the Task was finished (for IP reasons). The Website has many issues particularly around user-friendliness and searchability and these are currently addressed with a new web developer working on an update and complete transfer to a different (Wordpress) platform, ensuring Web 2.0 compatibility. The success of the website in terms of download stats is great, although they do not change over time (seem to hover around 1m hits per year over the years) and the Google Analytics show that visitors stay only 3 minutes on average, which seems too short to get much meaningful impact from the many important and interesting messages on the website. In addition, the Google Analytics (which have only been put in place since March 3, 2014, see Appendix) don't seem to add up with the total number of website hits: in 6 months, there were 6347 visitors (70% of them unique) which would add up to approximately 9000 unique visitors per year, much fewer than the 1 million visitor hits shown by Solstice (they are probably individual site hits, and not by unique visitors). There is also a discrepancy with Google Analytics showing between 30-60 visitors per day, and Solstice stats showing over 3000 hits per day (see Table 1). The EUWP Reporting (strategy, request for extension, work programme for next 5 years) has had some hiccups but we have just received notice of another successful 5-year extension. Our social media presence is adequate and much better than many other IAs, including ISGAN (2 tweets, 14 followers on Twitter for example). The IEA Secretariat on the other hand, has a very successful twitter account with over 36,000 followers and 7000+ tweets. Our facebook and linkedin groups are solid but mainly contain posts from 1-2 ExCo members, with little follow-up in discussions. We have no blogs and our columns on the website are underutilised to say the least. The YouTube channel is so far empty and we don't make good enough use of posting pictures, eg from ExCo meetings or workshops and conference presentations (some Tasks, especially Task 24 being the exception). The DSM University is too young to be able to tell how successful its messaging is, the first webinars had a growing number of attendees and showed this method of communication was very successful.

4. <u>Document any lessons learned:</u> We are very solid in our communications and really good at what we are good at. However, we obviously have some blind spots as noted by the EUWP and CERT in our last request for an extension<sup>19</sup>.

Some criticisms can be remedied rather easily, eg conforming to the IEA guidelines and templates for reporting, others, like more ExCo involvement in communications and dissemination are more difficult. Everyone is very busy nowadays and less money is spent on activities like research and international agreements. Everyone is overloaded with emails and web messaging and it is hard to get people excited by social media (they are either too jaded as they are too immersed in it or too averse to trying it out and eg getting a facebook profile or twitter account). The face-to-face interactions and their impact don't get recorded and reported on enough. We need to ensure that there are records, either in form of memos or videos or short posts or Spotlight articles on any meaningful interaction with policymakers or non-participating countries. Workshop minutes and presentations need to be available shortly after they happen, eg via slideshare (For an example, see Task 24: <a href="http://www.slideshare.net/drsea">http://www.slideshare.net/drsea</a>). The website

<sup>&</sup>lt;sup>19</sup> Contribution to information, dissemination (from original EUWP comments)

A major outcome of the self-assessment is a substantial lack of visibility of the implementing agreement as well as of the specific results. DSM proposes the creation of the so-called DSM-University to promote and spread the results, back to the beginning of the IA, and to enhance their expert platforms. Since additional details are not provided by the Supporting Documents it is open if this action is sufficient. Since dissemination is crucial for the success of an IA the EUWP recommends to investigate and elaborate on further possibilities. This might also include a reflection on the further use of the current name "DSM", understood differently in different societies and that people might associate with an 'outdated' topic.

has been a big problem and is currently being updated and made more user-friendly as it is our main 'face' to the world and first port of call for many new interested stakeholders and potential experts and participants. We can definitely do better on social media (see Task 24) but everyone needs to do a little bit - not everyone needs to have a facebook profile but there are ways of using social media, eg the DSM University webinars or the column on the website. The ExCo needs to be better at disseminating the Task and IA work in their countries and respond faster to requests from the Executive Secretary on eg polls, ballots and surveys. The OAs need to get better at disseminating their Tasks' output and results outside of their well-known expert networks (which most Tasks are very good at already). Our high relevance to global issues like climate change, energy security, the global financial crisis and necessary system (economic and energy) transitions need to be reflected in our communications, interactions and outputs.

# 3. OBJECTIVES

This document has now set out the current state of communications within the DSM IA. The next step is to describe the future state, which will be achieved through the execution of this plan.

#### 3.1. Communications Objectives

Here are the top 3 objectives that are to be achieved by the execution of this Communications Plan. They are: Specific, Measurable, Actionable, Relevant and Timely (S.M.A.R.T) where possible.

- <u>Increasing stakeholder awareness</u>, at the IEA level and the country level in order to attract at least 1 extra country per year and add at least one new Task per year
- <u>Changing the perception of our IA and its relevance and influence</u> in order to get a 5-year extension at the next EUWP meeting (DONE)
- <u>Improve the way we communicate and disseminate our global work</u> in order to be able to prove that our work has influence and relevance with policymakers, is widely known and read and attracts further funding and experts.
- Create annual output of all Tasks instead of (only) end of project report

#### 3.2. Communications Guidelines

To help meet these objectives, here is a list of the guidelines that are applicable to the dissemination of communications messages within our team:

- All messages will be audience-specific, timely and relevant
- Every key message will be communicated formally
- Messages will be distributed through an appropriate channel (media, social media, reports, website, faceto-face, DSM University, Task Zero etc)
- The core communications team (Rob, Anne, Hans, Sea, Pam, Paul) will communicate what people need to know before they need to know it
- Communication will be tailored, based on what people need and want to know
- All critical communications must be approved by PPC prior to distribution
- Only the communications team will be able to distribute official press releases
- Each Task OA will know their specific communications requirements and will follow them
- Once a year there will be a communications workshop/update at an ExCo meeting
- Regular, unbiased reporting on communications success measures will be undertaken as required

- We will evaluate our communications efforts once a year and do 360 stakeholder feedback at least every 2 years
- The communications team will listen and act on feedback

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#### 4. STAKEHOLDERS

This document has described the communications environment and set 4 key objectives for communications within the DSM IA. The next step is to identify who it is that will be involved in the dissemination and receipt of communications issued by the communications team i.e. who is going to create, send out and receive the formal communications messages.

#### 4.1. Target Audience

Here we list and describe each of the audience groups (i.e. stakeholders) that the DSM IA will communicate with formally.

- Project Preparation Committee (PPC) (Chair, Vice-Chair, Advisor, Secretary, Visibility Committee Chair)
- Executive Committee (16 members from each country and sponsors)
- Operating Agents (of each current Task)
- National Experts (from each current Task)
- IEA Secretariat (CERT, Desk Officer, Legal)
- EUWP, EEWP (wider IEA country members)
- Policymakers and industry reps from participating countries
- Policymakers and industry reps from other IEA and observer countries
- Researchers from a large variety of disciplines
- Behaviour Changers in government, research, intermediaries, the third sector, business

#### 4.2. Stakeholder Requirements

The target audience are the stakeholders we are going to formally communicate with. It is now important to identify the information that they need to receive. We still need to list each stakeholder, the information they need to receive and the timeframe in which they need to receive it (to be done with input from ExCo). It is prudent to check with each stakeholder that the above information requirements meet their needs before finalising the communications plan.

National base and dissemination of products<sup>20</sup>

The new business structure that has emerged in the energy sectors in the participating countries makes it more difficult to formulate priorities and to target results. Many actors in the energy arena today have a new business, new objectives and new structure. It is therefore highly recommended that each participating country form a DSM-user group and involve them in the work of the IEA DSM Programme. Who actually should participate and in what form is highly dependent on each country's specific situation.

The following stakeholders could participate in these national groups:

- Utilities
- Regulators
- National, Local and Regional Administrations and Agencies
- Industry and Trade Associations
- System Operators

<sup>20</sup> From the PPG (2008)

- Customer Organisations and larger Customers
- Universities
- · Research Bodies
- Journalists.

The DSM-user groups should be used to provide input during the Task definition phase, to review work in progress and to disseminate the Task results. These groups could also provide their priorities to the ExCo when new Strategic Plans are developed. They could also assist in providing experts and possibly providing or finding funding or sponsorship. They could also propose nominations to the Award of Excellence.

ExCo members and their national experts in each country are asked to form such a user group and consult with it on a regular basis in preparation for ExCo meetings.

#### 4.3. Key Messages

There are a handful of key messages that are communicated to the majority of stakeholders on a regular basis.

For the ExCo, the key messages may be the:

- Programme status: Whether and how the Programne is currently operating within the agreed strategy, budget and country requirements.
- Programme issues: The impact of the issues currently affecting the Programme and the actions taken to resolve them.
- Programme deliverables: The deliverables completed to date, the usefulness of the results to our main stakeholders and the Tasks or Subtasks which are scheduled for completion within the next reporting period.
- Programme resources: The overall level of resourcing in relation to the 5-year Work Plan and any resource constraints currently affecting the project.

These key messages need to be woven into the communications events that you are about to schedule for your team.

#### 5. CHANNELS

Here the communications plan identifies the core communications channels.

#### **5.1. Delivery Channels**

"Delivery channels" provide the mechanism for disseminating information to our stakeholders. The most important consideration when determining the appropriate delivery channel is to use whatever channel our target audience prefers to use. Using the right channel is as important as drafting the right communications message for the right stakeholders at the right time.

IEA DSM core delivery channels (current and potential\*):

- Books/Book chapters\* (eg in IEA publications)
- Branding (needs to be updated)
- Brochures
- Business cards\* (for PPC and OAs)
- Columns

- Conferences
- DSM University
- Direct mail
- Email
- Flyers
- Fact sheets\*
- Letterheads
- Magazine articles
- Media packs\*
- Newsletters
- Posters (at conferences)
- PPC phone conferences
- Public meetings\*
- Quotes\*
- Radio/Podcasts (eg Task 24)
- Reports (also printed/published)
- Scientific publications
- Seminars
- Shows\* (eg European Sustainability Fair?)
- Signage (eg at Korean ExCo meeting)
- Social events (eg for ExCo and OAs)
- Social media (linkedin, facebook, twitter, youtube, slideshare, blogs)
- Speaking engagements (eg DSM University webinars or keynotes)
- Special Issues in Journals\*
- Television\*
- ExCo meetings
- Video presentations
- Webinars
- Website
- Workshops

# **Programme products**<sup>21</sup>

With the aim that the Programme should deliver more readily available products to be used and implemented, it is necessary to develop a range of products that could suit several categories of users and that could be developed and delivered in sequence during the work of a Task. The Programme should include:

- Reports from the on-going work (Minutes from Experts meetings, compilation of presentations, questionnaires, etc.
- Publications of results (analysis, overviews and conclusions that might be accompanied by background material etc.)
- Articles for professional journals
- Workshops and presentations at workshops and conferences
- Forums for dissemination and/or discussion with possible users, customers, decision-makers etc.)
- Growing pool of individuals and organisations in each country that develops new expertise in DSM issues and solutions

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<sup>&</sup>lt;sup>21</sup> From the PPG (2008)

- Databases
- Software for calculations, simulations, etc.
- Training seminars and courses
- Award of Excellence to be delivered once a year to a company or a product that facilitates DSM.

Each of the Tasks must carefully plan how their work can be made available to their stakeholders by integrating several of these products and also by continuously reviewing how dissemination can be improved. The Operating Agents should explicitly state what products they intend to deliver and preferably do so in a special dissemination subtask that will be an integral part of their work.

#### 5.2. Information Collection

Once the ExCo have identified the channels we are going to use to disseminate our information, we have to identify where the information is going to come from to populate our channel. For instance, where is the news information coming from each time to populate Spotlight or columns?

Table 1 showing the information source for each channel that has been listed above.

Channel	Newsletter	Website	Social media	Journals
Information Requirement	General			In depth knowledge
Information Provider	ExCo, Invited	Anne, all	All/Anne	OA's
Collection Timeframe	4/annum	On going	On going	Annual

#### 6. COMMUNICATIONS PLAN

Here is the schedule of communications activities that are required to keep the right stakeholders informed with the right information, at the right time.

# 6.1. Communications Schedule

Table 2 showing times, outputs, person responsible and person who will complete the task.

Output	Time	Responsible	Complete
Annual report	January	Chair	Anne
Newsletter	Quarterly	Visibility Chair	Pam
PMD (general)	April/October	Chair	Anne
Financial report	April/October	Vice Chair	Anne
Website control/update	Weekly	Visibility Chair	Anne
Task Status Reports	April/October	OAs	Anne

#### 6.2. Communications Responsibilities

In the matrix below, we list each of the people responsible for the communications events above and describe their responsibilities in taking part in these events using the key provided.

Visibility Committee Chair	DSM Chair	ExCo Secretary	ExCo Advisor	Operating Agents
General overview each PMD		PMD and Annual Report	Webinars	Reports - biannual
Communications Plan	Feedback to EEWP/EUWP	Website	Programme Strategy	Article for Spotlight
Social Media	Extension Proposal	Social Media		Publications

#### 7. FEEDBACK

After the completion of each communications event, we need to get feedback on whether or not it was successful. The success criteria we will measure against are listed in the next section.

#### 7.1. Feedback Measures

We need to implement a suite of feedback measures to gain feedback on the level of success of the event to determine whether the right information was distributed to the right people at the right time.

If the feedback was positive and all of the criteria were met, then the event was a success. However in some cases, the feedback may show that certain success criteria were not met, and an alternative communications event or message distribution may need to take place to correct any issues raised.

Here we describe each of the measures we will put in place to gather feedback on communications events you have scheduled. Some examples include:

- Questionnaires (eg from ExCo, 360 review, IEA EUWP, national stakeholders...)
- Feedback forms (eg after workshops)
- Independent audits?

#### 7.2. Success Criteria

Here we list the criteria that determine whether the communications event (or activity) was successful. It is important to specify clear, precise criteria in this section. This will ensure that once the communications activity is completed and we have received feedback about it, we can easily compare the feedback to the criteria listed here and determine whether the activity was completed satisfactorily.

Here are some examples:

- The message reached its intended audience
- The message was distributed through the planned channel
- The output reached the intended audience on schedule
- The distribution was effective (how to measure it? Report downloads, retweets, likes, numbers of attendees at workshops etc?)
- The message achieved the desired effect (how to measure it? Comments, personal feedback, new country members, new Tasks, Programme extension granted..?)
- The message addressed the information requirements of the audience
- · The message was received as honest and trustworthy

There were no complaints received or issues identified

#### 8. APPENDIX

Attach any documentation we believe is relevant to the Communications Plan. For example:

- · Existing Newsletters, columns
- Templates for status and annual reports, IEA reporting template for work plan and request for extension, new Task concepts, Task proposals, Task work programmes, NPP, Legal Annex...
- Corporate Communications Policies, Standards or Guidelines (eg PPC)

#### 8.1. Assumptions

Here we list any planning assumptions that were made during the creation of this Communications Plan. For example, it may be assumed that:

- There are adequate resources available to complete the assigned tasks.
- The persons responsible to complete assigned tasks are aware of the requirements.
- The timeframes listed in the Communications Schedule are satisfactory.
- The required budget is available to complete the tasks needed.

#### 8.2. Risks

List of risks identified during the creation of this Communications Plan. For example:

- Key communications resources leave during the project.
- The requirements for communication change during the project.
- The list of project stakeholders changes throughout the project.
- There are insufficient resources given by the countries (to their ExCo).
- National experts leave Tasks.
- OAs are not able to complete their Sub/Tasks.
- The website does not function as it should.
- Extensions are not granted by the EUWP/CERT.
- Our results do not reach the intended target audience in the intended way.

# 8.3. Detailed Report Website Download Stats

March 1st 2013 - February 18th 2014			_
Task	Document	Downlo ads	_
Task 1 Subtask 8 - International Database on		aus	
Demand-Side Management Technologies			
and Programmes	INDEEP Analysis Report 2000	107	_
Task 1 Subtask 8 - International Database on		107	
Demand-Side Management Technologies			
and Programmes	INDEEP Analysis Report 2004	444	
and Hogrammes	Assessment of Research, Development and	777	
Task 2 - Communications Technologies for	Demonstration Priorities for DSM and Value Added		
Demand-Side Management	Services	117	
Demand-Side Management	Evaluation of Communications to Meet	11/	
Tools 2 Communications Technologies for	Customer/Utility Requirements for DSM and Related		
Task 2 - Communications Technologies for		164	
Demand-Side Management	Functions	164	-
Tarle 2. Communications Technologic	International Standards Activity for Customer/Utility		
Task 2 - Communications Technologies for	Communications Demand Side Management and	126	
Demand-Side Management	Related Functions	126	-
	International Standards Activity in Customer/Utility		
Task 2 - Communications Technologies for	Communications for Demand Side Management and		
Demand-Side Management	Related Functions	155	-
Task 2 - Communications Technologies for	User Interface Design for Function and		
Demand-Side Management	Communication Evaluation and Costing Model	153	-
Task 3 - Co-operative Procurement of			
Innovative Technologies for Demand-Side	Appendices to Task III Final Management Report,		
Management	March 2000	241	-
Task 3 - Co-operative Procurement of			
Innovative Technologies for Demand-Side	Task III Final Management Report - Co-operative		
Management	Procurement of Innovative Technologies, May 2000	169	-
Task 4 - Development of Improved Methods			
for Integrating Demand-Side Options into	Guidebook on Analytical Methods and Processes for		
Resource Planning	Integrated Planning	111	_
	Task IV:7 Preliminary Concepts for New Mechanisms		
for Integrating Demand-Side Options into	for Promoting DSM and Energy Efficiency in New		
Resource Planning	Electricity Business Environments	143	_
Task 5 - Investigation of Techniques for	,		
Implementation of Demand-Side			
Management Technology in the Market			
Place	TASK V: Read Me	138	_
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market			
Place	TASK V: Read Me - Leame - Spanish	142	_
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market	Task V: Report no 2 (2nd edition) Marketing Analysis		
Place	of DSM Programmes	157	
Task 5 - Investigation of Techniques for	or Dom Frogrammes	1.07	_
Implementation of Demand-Side			
Management Technology in the Market	Task V: Report no 2 (2nd edition) Marketing Analysis		
	of DSM Programmes Spanish	142	
Place	of Dom Flogrammes Spanish	142	_

Tools 5 Investigation of Tashniques for			
Task 5 - Investigation of Techniques for Implementation of Demand-Side			
Management Technology in the Market	TASK V: Report no 3: Questionnaire Analysis of		
Place	Programmes Developed in Annex V	160	_
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market	Task V: Report no 3: Questionnaire Analysis of		
Place	Programmes Developed in Annex V. In Spanish	141	-
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market			
Place	Task V: Report no 4	157	-
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market		121	
Place	Task V: Report no 4. In Spanish	131	-
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side Management Technology in the Market	Task V: Report no 5 - Action Plans and Evaluation		
Place	Areas of Programmes Developed in Task 5 in Spanish	97	
Task 5 - Investigation of Techniques for	Areas of Frogrammes Developed in Task 5 in Spainsii	91	-
Implementation of Demand-Side			
Management Technology in the Market	Task V: Report no 5: Action Plans and Evaluation		
Place	Areas of Programmes Developed in Task 5	144	_
Task 5 - Investigation of Techniques for	and of the grammes 2010 for in their c		
Implementation of Demand-Side			
Management Technology in the Market			
Place	TASK V: Report no 6 - FINAL REPORT	102	-
Task 5 - Investigation of Techniques for			
Implementation of Demand-Side			
Management Technology in the Market			
Place	Task V: Report no 6 - FINAL REPORT in spanish	135	-
Task 6 - Mechanisms for Promoting DSM	Energy Policy paper: Public policy analysis of energy		
and Energy Efficiency in Changing	efficiency and load management in changing	4.50	
Electricity Businesses	electricity businesses	169	-
	Conceptos Preliminares Para la Obtención de Nuevos		
Task 6 - Mechanisms for Promoting DSM	Mecanismos Dirigidos a Promover la Gestión de la		
and Energy Efficiency in Changing	Demanda (DSM) y la Eficiencia Energética en los	117	
Electricity Businesses Task 6 - Mechanisms for Promoting DSM	Mercados de Electricidad Competitivos  Desarrollo de Mecanismos para Fomentar la Gestión	11/	-
and Energy Efficiency in Changing	de la Demanda y la Eficiencia Energética en Sectores		
Electricity Businesses	Eléctricos en Proceso de Transición	272	_
Electricity Businesses	Implicaciones Políticas de los Mecanismos para	272	
Task 6 - Mechanisms for Promoting DSM	Promocionar la Eficiencia Energética y la Gestión de		
and Energy Efficiency in Changing	la Carga en Sectores Eléctricos en Proceso de		
Electricity Businesses	Transición	153	-
Task 6 - Mechanisms for Promoting DSM	Research Report No 1: Existing Mechanisms for		
and Energy Efficiency in Changing	Promoting DSM and Energy Efficiency in Selected		
Electricity Businesses	Countries	193	_
Task 6 - Mechanisms for Promoting DSM	Research Report No 2: Public Policy Implications of		
and Energy Efficiency in Changing	Mechanisms for Promoting Energy Efficiency and		
Electricity Businesses	Load Management in Changing Electricity Businesses	160	-
Task 6 - Mechanisms for Promoting DSM	Research Report No 3: Developing Mechanisms for		
and Energy Efficiency in Changing	Promoting Demand-Side Management and Energy		
Electricity Businesses	Efficiency in Changing Electricity Businesses	164	-
Task 6 - Mechanisms for Promoting DSM			
and Energy Efficiency in Changing			
Electricity Businesses	Task VI Flyer	160	-

Task 7 - International Collaboration on			
Market Transformation	Branding Energy Efficiency - Industry Consultation	145	_
Task 7 - International Collaboration on	Drainaing Energy Efficiency industry constitution	115	
Market Transformation	Branding Energy Efficiency - MT7 Market Report	219	_
Task 7 - International Collaboration on	0 0, ,		
Market Transformation	Branding Energy Efficiency - Summary	180	-
Task 7 - International Collaboration on			
Market Transformation	Task VII Flyer	145	-
Task 8 - Demand-Side Bidding in a			
Competitive Electricity Market	Task 8 - A Practical Guide to Demand-Side Bidding	64	-
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	Task 8 - Market participants' views towards and experiences with Demand Side Bidding	64	
Task 8 - Demand-Side Bidding in a	experiences with Demand Side Bidding	04	-
Competitive Electricity Market	Task 8 Flyer - Demand Side Bidding	122	_
Task 8 - Demand-Side Bidding in a	Tusk of Tyer - Demand Side Didding	122	
Competitive Electricity Market	Task 8: Demand Side Bidding Brochure	88	_
Task 8 - Demand-Side Bidding in a	TASK 8: Stage 1 Report - Demand Side Bidding in a		
Competitive Electricity Market	Competitive Electricity Market	77	-
Task 9 - The Role of Municipalities in a			
Liberalised System	TASK IX: Graz Report 1 Final	163	-
Task 9 - The Role of Municipalities in a			
Liberalised System	TASK IX: Graz Report 2 Final	147	-
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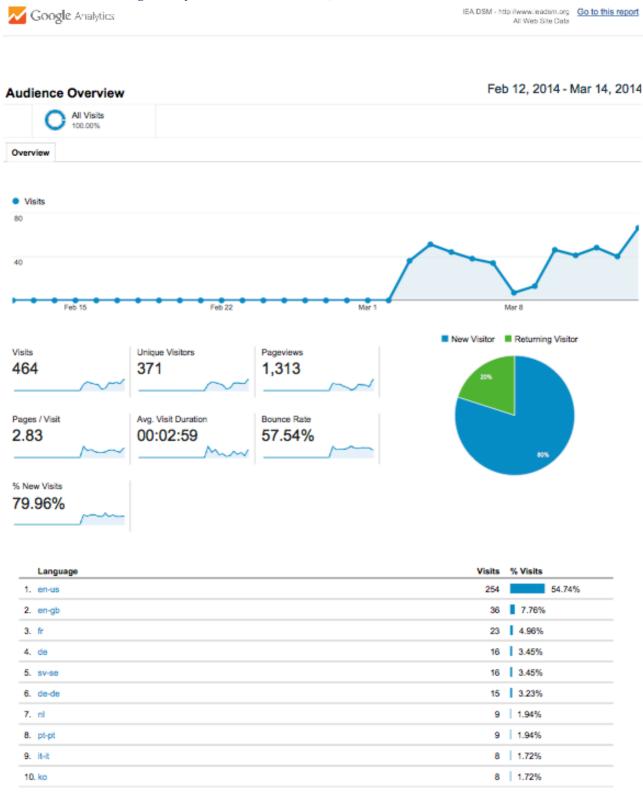
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# 8.4. Templates of main headings to be used in Annual Reports and Task Status Updates etc.

# 8.5. Google Analytics March 3 - March 15, 2014



#### HOW TO ARRANGE A "DSM DAY" IN YOUR COUNTRY

#### Follow-up of the IEA DSM day (11 June 2014)

DSM in Belgium: how it works and who is responsible for what? And how to promote the IEA DSM activities?

The goals of the presentation would be:

- <u>Demonstrate how an IA can be organised in a federal country (background info)</u> Both as an example (pro and contra) and as discussion point for other countries organized on a federal model on the following aspects: institutional [and R&D/academic] coordination, DSM (and energy R&D) policy framework. ...
- Give directions to the operating agents on "how to deal with Belgium" Practical tips: who might be interested? What could be of interest for the federal/regional authorities/scientific institutions/other institutional players/private stakeholders? When is the best moment and how to reach them? ...
- Showcase the DSM day as a tool that others might use too. The federal authority (current member of the ExCo) still benefits from a strong visibility in the whole country. Based on strong external collaboration and a targeted content, public DSM events organized under the umbrella of the federal Ministry can help bring the topic under the spotlight for decision makers, private companies and the R&D sector.

Short presentation of the last DSM day (11 June) + how to ensure a proper follow-up?

### François Brasseur

Attaché

Direction générale Energie - Autorisations & Nouvelles Technologies

#### TASK ZERO - RUNNING THE IMPLEMENTING AGREEMENT

# 1. SUMMARY

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.

#### 2. OBJECTIVES

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-	Task-
		shared	shared
A	Make and distribute agendas, minutes and other documents of Executive Committee meetings	Х	
<b>\</b>	Prepare decisions and recommendations	Х	
>	Assist the Executive Committee and its Chairmen in carrying out their responsibilities including the running of the Project Preparatory Committee (PPC)	X	
Output an	d visibility (technical facilities and content)		
>	Website,	Х	(x)
>	Spotlight newsletter,	Х	Х
>	Social media,	Х	Х
>	Flyers	Х	

#### 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)		Х

#### 3. MORE STRINGENT WORK

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.

#### 4. FINANCE

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

2	012	2013		2	2015	
Budget	Performance	Budget	Performance	Budget	Performance	Budget
168,000	162,074	168,000	145,985	144,000	-	144,000

The <u>value</u> 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. <sup>22</sup>

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.

#### 5. MATTERS FOR THE EXCO

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

<sup>&</sup>lt;sup>22</sup> The fee to the common fund has been 8000 USD per annum since the programme started more than 20 years ago.

# FINANCIAL REPORT

# **Budget Status for 2014**

Catagoggy	2013		20	2015	
Category	Budget Plan	Performance	Budget Plan	Performance	Budget Plai
<b>Opening Balance</b>		\$788		\$661	
Replenishment of IEA DSM Fund		\$296 000		\$270 000	
m . IX		0110.070		067.704	
Total Income		\$119 858		\$65 584	
Common fund		\$119 858		\$65 584	
Interest Income		\$0		\$0	
<b>Total Expenses</b>	\$168 000	\$145 985	\$144 000	\$89 402	\$144 00
Operating Expense	\$163 000	\$141 706	\$168 000	\$88 894	\$168 00
ExCo Support	\$60 000	\$58 779	\$60 000	\$47 044	\$60 00
Exco Communications	\$6 000	\$1 987	\$6 000	\$0	\$6 00
Advisor	\$25 000	\$41 664	\$30 000	\$14 238	\$30 00
ExCo Reserve Fund	\$10 000	\$0	\$10 000	\$0	\$10 00
Information Activities	\$62 000	\$39 276	\$62 000	\$27 612	\$
Annual Report	\$17 000	\$7 536	\$17 000	\$10 585	\$17 00
Spotlight Newsletters	\$20 000	\$16 766	\$20 000	\$4 926	\$20 00
Program Website	\$20 000	\$14 974	\$20 000	\$12101	\$20 00
DSM Brochure & Flyers	\$5 000	\$0	\$5 000	\$0	\$5 00
74 4 1 77	27.000	0.4.4.70	0=000	0.500	
Financial Expense	\$5 000	\$4 279	\$5 000	\$508	\$5 00
Accounting Fees	\$3 000	\$3 600	\$3 000	\$0	\$3 00
Annual License Renewal	\$200	\$150	\$200	\$210	\$20
Bank Service Charges	\$1 800	\$529	\$1 800	\$298	\$1 80
Balance Adjustment	-	\$0	-	\$0	
Reimbursed Expenses	-	\$0	-	\$0	
Fund Transfer for wiring charges	-	\$0	-	\$0	
Tax	-	\$0	-	\$0	
Close out		\$270 000		\$216 422	
End of Balance		\$661		\$30 421	

#### **Financial Status for 2014**

The opening balance of year 2014 is \$661. As presented above in Budget Status for 2014, the DSM fund was replenished by \$270,000 same as amount of 2013's close-out.

Income is made up of common fund and interest income. Seven countries have so far contributed \$65,584 in 2014 and the interest accrued was nothing. Thus, the total income is \$65,584.

Expenses consist of IA operating expenses and financial expenses. Above all, let us look closely at the sub-categories of the operating expenses. ExCo Support takes up the largest part of operating expenses, reaching \$47,044, and is within the set budget. This category includes labor, travel costs and especially costs for supporting the IA.

Next, total \$14,238 was spent on the advisor for 2 occasions, including in-depth advices such as development of a DSM University and future plan of IEA DSM Implementing Agreement. For the next period's budget for 2015, considering advisor's role, an increase by about \$10,000 needs to be considered. (refer; Budget for advisor in 2014 set to be \$30,000)

Next, total \$27,612 was spent on information activities, including \$10,585 on annual report, \$4,926 on spotlight newsletters, and \$12,101 on program website. The amount was within the budget of \$62,000.

Total \$508 was spent on financial expenses, including \$210 on annual license renewal, and \$298 on bank service charge. The book was closed out at \$ 216 422, and the balance stood at \$ 30,421.

As a result, so far in 2014, it shows that overall expenses decreased compared to that of 2013. The performance in 2014 was within the budget limit of \$168,000. No specific problem is to be observed when it comes to expenses.

# **Status of DSM Common Fund Payments by Country**

This table shows current payment status for common fund for 4 years.

COUNTRY	2011	2012	2013	2014
Austria*	☺	©	☺	☺
Belgium*	©	☺	*	*
Finland*	☺	☺	☺	☺
France*	©	☺	☺	-
India*	©	☺	☺	*
Italy*	©	☺	☺	©
Korea*	©	☺	*	*
Netherlands*	☺	☺	☺	*
New Zealand*	☺	☺	-	©
Norway*	☺	☺	☺	*
Spain*	☺	☺	☺	©
Sweden*	©	©	☺	©
Switzerland*	☺	☺	☺	*
UK*	☺	☺	☺	©
US*	©	©	©	*
RAP**	©	©	☺	©
ECI**			☺	☺

<sup>\*:</sup> member country, \*\*: sponsor (2012)

# Countries which have not paid 2013 invoice:

Belgium, Korea

Attachment #1-1) 2014 Bank Statement Attachment #1-2) Calculation for expenses based on 2014 bank statement Attachment #2) IEA DSM 2014 General Ledger (Profit and Loss)

# 2014 Bank Statement

Date	Description	Amount(\$)	Balance(\$)	Explanation
2014-01-01	Opening Balance		\$661	Opening Balance
2014-01-06	Annual License renewal	(\$210)	\$451	Annual License Renewal
2014-01-13	Bank Service Charge	(\$23)	\$428	Bank Service Charge
2014-01-14	Replenishment	\$270 000	\$270 428	Replenishment of IEA DSM Fund
2014-01-20	KM Group	(\$2 532)	\$267 896	KM Group
2014-01-23	Common fund	\$7 970	\$275 866	Sweden
2014-01-24	Leading Technologies	(\$13 348)	\$262 518	Leading Technologies
2014-01-24	Duneworks	(\$10 254)	\$252 264	DuneWorks
2014-01-27	Common Fund	\$7 957	\$260 221	Spain
2014-01-31	Common Fund	\$7 973	\$268 194	Austria
2014-02-03	Common fund	\$7 965	\$276 159	Italy
2014-02-06	Common fund	\$15,978	\$276 175	India
2014-02-11	Bank Service Charge	(\$89)	\$276 086	Bank Service Charge
2014-02-12	Common fund	\$7 975	\$284 061	France
2014-02-24	Four Fact AB	(\$6 588)	\$277 473	Four Fact AB
2014-02-25	Common fund	\$8 000	\$285 473	United Kingdom
2014-02-28	Leading Technologies	(\$11 783)	\$273 690	Leading Technologies
2014-03-06	Common fund	\$1,766	\$273 692	Seed Fund Task 24
2014-03-07	Leading Technologies	(\$15 020)	\$258 672	Leading Technologies
2014-03-11	Bank Service Charge	(\$100)	\$258 572	Bank Service Charge
2014-03-14	KM Group	(\$8 401)	\$250 171	KM Group
2014-04-03	KM Group	(\$1 819)	\$248 352	KM Group
2014-04-04	Leading Technologies	(\$11 164)	\$237 188	Leading Technologies
2014-04-11	Bank Service Charge	(\$26)	\$237 162	Bank Service Charge
2014-05-01	Four Fact AB	(\$7 650)	\$229 512	Four Fact AB
2014-05-12	Bank Service Charge	(\$20)	\$229 492	Bank Service Charge
2014-06-11	Bank Service Charge	(\$19)	\$229 473	Bank Service Charge
2014-06-20	KM Group	(\$644)	\$228 829	KM Group
2014-06-30	Leading Technologies	(\$14 018)	\$214 811	Leading Technologies
2014-07-11	Bank Service Charge	(\$21)	\$214 790	Bank Service Charge
2014-07-14	Leading Technologies	(\$11 311)	\$203 479	Leading Technologies
2014-08-04	Leading Technologies	(\$4 122)	\$199 357	Leading Technologies
	Income			
	Bank service charges			
	Expenditure			

# Calculation for expenses based on 2014 bank statement

Category	USD	Invoice	Total
ExCo support			
	\$7 312		
	\$14 163		
	\$8 622		
	\$10 308	9 9	
	\$6 639	Leading Technologies 14/13	¢47.044
	\$47 044		\$47 044
Advisor			
7.44.001	\$6 588	Four Fact AB14-238	
	\$7 650		
	\$14 238		\$14 238
Annual report			
	\$4 471		
	\$4 295	-	
	\$1 819	KM Group 2014-003	
	\$10 585		\$10 585
Spotlight newsletter			
Task flyers	\$2 532	KM Group 2014-001	
Tusk Hyers	\$4 106		
Reimbursement - ticket	(\$2 356)	KM Group 2014-004	
	\$644		
	\$4 926	·	
			\$4 926
Program website			
	\$857	9 9	
	\$2 542		
		Leading Technologies 13/13	
		Leading Technologies 14/13	
	\$12 101	Leading Technologies 15/13	\$12 101
	312 101		\$12 101
Operating expense			\$88 894
,			
Accountimg Fees			\$0
Annual license renewal	\$210		\$210
Donk comice shares	ć200		6200
Bank service charge	\$298		\$298
Financial expense			\$0
SAPORIOC			<del>-</del>
Total expense			\$88 894

## IEA DSM 2014 General Ledger (Profit and Loss)

8:41 AM 08/12/14 Cash Basis

#### IEA - Demand Side Management Profit & Loss Detail January 1 through August 12, 2014

Туре	Date	Name	Memo	Paid Amount	Balance
	ome/Expense				
Income					
	ss Income 01/14/14	Demont	De plenishment of ICA DOM Francisco CO. 4	070 000 00	070 000 00
Deposit	01/14/14	Deposit Deposit	Re-plenishment of IEA DSM Fund for 2014 Sweden	270,000.00 7,970.00	270,000.00
Deposit Deposit	01/23/14	Deposit		7,970.00	277,970.00 285,927.00
Deposit	01/21/14	Deposit	Spain Austria	7,957.00	285,927.00
Deposit	02/03/14	Deposit	Italy	7,965.00	301,865.00
Deposit	02/06/14	Deposit	India	15.978.00	317,843.00
Deposit	02/12/14	Deposit	France	7,975.00	325,818.00
Deposit	02/25/14	Deposit	UK Dept of Energy and Climate	8.000.00	333,818.00
Deposit	03/06/14	Deposit	Seed Fund from Task 24	1,766.00	335,584.00
	al Gross Income	Deposit	Seed Fund IIOIII Task 24	335,584.00	335,584.00
108	al Gross income			335,584.00	335,584.00
Total Ir	ncome			335,584.00	335,584.00
Gross Pro	nt			335,584.00	335,584.00
Expen					
	k Service Charge			20.00	23.00
Check Check	01/13/14	Client Analysis Svc		23.00 89.00	112.00
Check	02/11/14	Client Analysis Svc		100.00	212.00
Check	03/11/14 04/11/14	Client Analysis Svc Client Analysis Svc		26.00	212.00
Check	05/12/14	Client Analysis Svc		20.00	258.00
Check	06/11/14	Client Analysis Svc		19.00	277.00
Check	07/11/14	Client Analysis Svc		21.00	298.00
Tota	al Bank Service Cha	arges		298.00	298.00
Con	sulting				
	Seed-Funding				
Check	01/24/14	Duneworks		10,254.00	10,254.00
1	Total Seed-Funding			10,254.00	10,254.00
	Consulting - Other				
Check	01/20/14	KM Group		2,532.00	2,532.00
Check	01/24/14	Leading Technolog		13,348.00	15,880.00
Check	02/24/14	Four Fact AB		6,588.00	22,468.00
Check	02/28/14	Leading Technolog		11,783.00	34,251.00
Check	03/07/14	Leading Technolog		15,020.00	49,271.00
Check	03/12/14	KM Group		8,401.00	57,672.00
Check	04/03/14	KM Group		1,819.00	59,491.00
Check	04/04/14	Leading Technolog		11,164.00	70,655.00
Check	05/01/14	Four Fact AB		7,650.00	78,305.00
Check	06/20/14	KM Group		644.00	78,949.00
Check	06/30/14	Leading Technolog		14,018.00	92,967.00

# **MISCELLANEOUS**

# Action Items resulting from the 43<sup>rd</sup> ExCo meeting 17 – 19 March, 2014 – Wellington, New Zealand

WHO	ACTION	WHEN
Belgium		
Norway	Pay Common Fund invoice for 2013	ASAP
See countries to	Pay Common Fund invoice for 2014	ASAP
the right	Belgium, Finland, India, Korea, Netherlands, New Zealand Norway, Switzerland, UK and USA, RAP	
Rob Kool	Maintain contacts with China (NDRC), Saudi Arabia, South Africa, Kuwait, Thailand, UAE	ASAP
Hans Nilsson Hans de Keulenaer	Move forward with the DSM University as proposed	DONE
Matthias Stifter René Kamphuis	Kick-Off meeting for Task 17 – follow up countries which have shown strong interest	DONE
Gabriele Sartori	Contact Task 17 – Matthias Stifter and Réne Kamphuis	ASAP
Harry Vreuls	Develop the concept on Impact Assessment of Behavioural Base Energy Efficiency Programmes and present at next ExCo meeting	NOT DONE
Linda Hull	Finalise Task 23 and present a Task Status Report and Final Management Report at next ExCo meeting	DONE
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
Rob Kool Hans Nilsson	Continue work on the End of Term report and Strategy	DONE
Hans Nilsson Sea Rotmann	Develop a plan on how the DSM Visibility Committee and the DSM University can collaborate	NOT DONE
Visibility Committee	Draft a web site definition and develop tender	DONE
Operating Agent	Update a more clear definition in Legal Annex text of their Task	ASAP
Solstice	Provide web statistics every six months	DONE
Jan W. Bleyl	Prepare extension of Task 16 (after June 2015)	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
Balawant Joshi	Produce Final report by next Executive Committee meeting	DONE
Operating	Include 1-2 slides in the presentation, highlighting the main	Present at
Agents	findings to date in their respective Task(s).	next ExCo meeting
Hans Nilsson	Further develop Task ZERO and present at next ExCo meeting	DONE-
Sea Rotmann	Develop a communications strategy for the DSM programme. Support development of individual communications and dissemination plans for all Tasks	DONE
ExCo members	Review website regularly and suggest further developments	On-going

#### Cont. Action Items

ExCo members	Suggest topics for the Spotlight Newsletter and provide	DONE
	input for those articles	
Pam Murphy	Distribute issues of the DSM Spotlight Newsletter	September
		2014
		December
		2014
Anne Bengtson	Prepare administrative details for the Forty Fourth	DONE
Boris Papousek	Executive Committee Meeting in Graz, Austria	
Hans Nilsson	Prepare status report on the development of the DSM	DONE
Hans de	University and send to Anne Bengtson for inclusion in the	
Keulenaer	Pre-Meeting Document (PMD)	
Matthias Stifter	Prepare Task Status report on Task Definition Phase 3 and	DONE
René Kamphuis	send to Anne Bengtson for inclusion in the Pre-Meeting	
	Document (PMD)	
Jan Bleyl-	Prepare a Task Status Report for Task 16 Phase 3 and send	DONE
Androschin	to Anne Bengtson for inclusion in the Pre-Meeting Document (PMD)	
Rob Kool	Prepare PPC progress report and send to Anne Bengtson	DONE
	for inclusion in the Pre-meeting Document (PMD)	
Balawant Joshi	Prepare a Final Task Report on Task 20 "Branding of	DONE
	Energy Efficiency" and send to Anne Bengtson for	
	inclusion in the Pre-Meeting Document (PMD)	
Sea Rotmann	Prepare Task Status Report Task 24 and send to Anne	DONE
Ruth Mourik	Bengtson for includion in the Pre-Meeting Document	
	(PMD)	
Sea Rotmann	Prepare Task Status Report for Task 24 extension and send	DONE
Ruth Mourik	to Anne Bengtson for inclusion in the Pre-Meeting	
	Document (PMD)	
Ruth Mourik	Prepare Task Status Report for Task 25 and send to Anne	DONE
	Bengtson for inclusion in the Pre-Meeting Document	
	(PMD)	
Rob Kool	Prepare Financial report and send to Anne Bengtson for	DONE
Anne Bengtson	inclusion in the Pre-Meeting Document	
Sea Rotmann	Prepare Visibility Committee Report for inclusion in the	DONE
Anne Bengtson	Pre-Meeting Document	
Operating	Prepare Task Information Plans and include in each Task	
Agents	Status Report.	On-going
	^	
Solstice	Provide statistics for every Task every six months, send to	DONE
	Anne Bengtson for inclusion in the Pre Meeting Document	
	<u> </u>	Monday 22
Anne Bengtson	E-mail pdf file of Pre-meeting Document for the Forty	September
	Fourth ExCo meeting to the Executive Committee	2014
	members and Operating Agents.	DONE

# **Participation Table**

Participant							
	16 ext.	17	20	23	24		25
	Competitive Energy Services Phase III – Energy Efficiency and Demand Response Services	Integration of DSM, Distributed generation, Phase 3	Branding of Energy Efficiency	DSM in delivering smart grids	◆ Closing the Loop: DSM From Theory to practice	DSM University	Up-scaling and Mainstreaming effective DSM energy service
Australia							
Austria	X	X			X	<b>♦</b>	<b>♦</b>
Belgium	X				X		<b>♦</b>
Finland					<b>♦</b>	<b>♦</b>	<b>♦</b>
India		X	X				
Italy					X		
Korea	X			X		<b>♦</b>	
Netherlands	X	X		X	X	<b>♦</b>	<b>♦</b>
New Zealand					X		
Norway				X	X	<b>♦</b>	
Saudi Arabia					<b>♦</b>	<b>♦</b>	
South Africa					X		
Thailand							
Spain			X				
Sweden	X	X		X	X	<b>♦</b>	<b>♦</b>
Switzerland	X	X			X X		<b>♦</b>
United Kingdom,				X	<b>♦</b>	<b>♦</b>	
<b>United States</b>		X	X				
RAP *					<b>•</b>	<b>•</b>	
European Copper Institute*		•				•	
OPERATING AGENT (OA)	Jan W. Bleyl- Androschin	Matthias Stifter & René Kamphuis	Balawant Joshi	Linda Hull	Sea Rotmann – Ruth Mourik	Hans Nilsson Hans de Keulenaer	Ruth Mourik

## 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
ЕОТ	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
НРС	Implementing Agreement on Heat Pump Centre
ICLEI	International Council for Local Environmental Initiatives
IEA	International Energy Agency
IPCC ISGAN	Intergovernmental Panel on Climate Change 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

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# **Detailed Statistics - Downloaded Task Reports DSM website**

March 2014 - September 2014	
Task	Views
Task 1 Subtask 8 - International Database on Demand-Side Management Technologies and Programmes	628
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes for Kyoto's GHG Targets	262
Task 10 - Performance Contracting	395
Task 11 - Time of Use Pricing and Energy Use for Demand Management Delivery	895
Task 12 - Cooperation on Energy Standards	123
Task 13 - Demand Response Resources	876
Task 14 - Market Mechanisms for White Certificates Trading	879
Task 15 - Network Driven DSM	1 285
Task 16 - Competitive Energy Services (Energy Contracting, ESCo Services)	1 608
Task 17 - Integration of Demand Side Management, Energy Efficiency, Distributed Generation and Renewable Energy Sources	1 971
Task 18 - Demand Side Management and Climate Change	463
Task 19 Micro Demand Response and Energy Saving	606
Task 2 - Communications Technologies for Demand-Side Management	381
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Task 3 - Co-operative Procurement of Innovative Technologies for Demand-Side Management	259
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Task 5 - Investigation of Techniques for Implementation of Demand-Side Management Technology in the Market Place	607
Task 6 - Mechanisms for Promoting DSM and Energy Efficiency in Changing Electricity Businesses	624
Task 7 - International Collaboration on Market Transformation	233
Task 8 - Demand-Side Bidding in a Competitive Electricity Market	449
Task 9 - The Role of Municipalities in a Liberalised System	276

March 2014 - September 2014		
Task	Document	Downloads
Task 1 Subtask 8 - International Database on Demand-Side Management Technologies and Programmes	INDEEP Analysis Report 2000	45
Task 1 Subtask 8 - International Database on Demand-Side Management Technologies and Programmes	INDEEP Analysis Report 2004	176
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes for Kyoto's GHG		
Targets	Evaluation Guidebook Volume 1	404
Task 1 Subtask 9 - Evaluation Guidebook on the impact of DSM and Energy Efficiency Programmes for Kyoto's GHG	Fundantian Cuidahaala Valuura 2	0.5
Targets Task 10 - Performance Contracting	Evaluation Guidebook Volume 2  Task X Flyer	95 59
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Meeting #	es the European Union)  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 – 11 April, 1997 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 October 2007	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		10
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# 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		
Finland	3	Switzerland	2		
Korea	3	UK	2		
Norway	3	Belgium	1		
Spain	3	Greece	1		
Sweden	3	India	1		
USA	3	NZ	1		