

Annex XXIV

CLOSING THE LOOP - BEHAVIOUR CHANGE IN DSM: FROM THEORY TO PRACTICE

1. Description of Technical Sector

It is estimated that energy-related behaviour change, facilitated and/or induced by Demand Side Management (DSM) programmes (e.g. feedback strategies that are improved to go beyond the traditional metering and billing) can trigger up to 20% electricity savings. All in all, it is estimated that 'negajoules', i.e. energy saved compared with a 'no-policy scenario', have become the largest single energy source in Europe. Recently, DSM programmes are increasingly acknowledging the untapped potential of changing the patterns of energy consumption by focusing on end-user energy demand reduction through behaviour changes. The potential of behaviour change (including energy conservation, peak-load shifting and load switching) is, for example, one of the important elements of the business case for an economically viable roll-out of smart meters.

This Task will concentrate on 'intermediaries' as the primary target audience - local government and national policymakers; technology developers and behaviour change researchers; research funders and investors; the utility industry and businesses implementing DSM programmes; community groups, NGOs and consumer groups. Two sectors - households and small to medium enterprises (SMEs) will be analysed in detail, and a major focus will be on smart metering, building retrofits and transport DSM programmes, policies and projects.

2. Objectives

The main objective of Task XXIV is to create a global expert network and design a framework to allow policymakers, funders of DSM programmes, researchers and DSM implementers to:

- I. Create and enable an international expert network interacting with countries' expert networks
- II. Provide a helicopter overview of behaviour change models, frameworks, disciplines, contexts, monitoring and evaluation metrics
- III. Provide detailed assessments of successful applications focussing on participating/sponsoring countries' needs (smart meters, SMEs, transport, built environment (in particular, refurbishment and/or renovations))
- IV. Create an internationally validated monitoring and evaluation template
- V. Break down silos and enable mutual learning on how to turn good theory into best practice

3. Means

The objectives shall be achieved by the Participants in the following Subtasks:

(a) Subtask 1: Helicopter Overview

This Subtask will present an inventory of what the diverse (sub)disciplines have to offer both theoretically and empirically. In addition, short definitions of each

model/framework/discipline will be developed, and a discussion on various disciplines' definitions of terms such as DSM and behaviour change. This will be underpinned by a range of empirical (case) studies that use or operate in these models/frameworks/disciplines, including any evaluation metrics that may have been used and contextual issues that may have been discussed. Pros and cons of each approach will be discussed using a framework to visualise each of the models' points of difference.

(b) Subtask 2: In-depth analysis and country-specific case studies in 4 themes

This Subtask will create an in-depth analysis of specific themes, sectors, and target group-specific issues that have been identified as relevant and in need of deeper understanding by the participating countries (transport, SMEs, building retrofits and smart meters). This will be achieved by means of specific selected case studies. In addition, it will explicitly focus on the usability of the inventoried models of understanding and evaluation metrics that were analysed and inventoried in ST 1. It will also critically look for ways to improve empirical inquiry and evaluation of energy DSM practices, with a special focus on what definition of success is relevant for what stakeholder (which will feed into ST 3).

(c) Subtask 3: Evaluation tool

This Subtask will focus on the development of indicators, metrics and ways to monitor and evaluate long-term, identifiable and/or measurable behaviour change outcomes of DSM programmes. These indicators etc will be context sensitive and contingent on the sector/goals/target groups of behaviour change programmes. Case studies of successful measurements and monitoring of ongoing behaviour change outcomes will be included.

(d) Subtask 4: Country-specific recommendations

This Subtask will be the culmination of all collected and analysed data in Subtasks 1-3. It will highlight what makes a good example 'good', when, where, why and how in the participating countries and on the topics of particular interest to these countries.

(e) Subtask 5: Social expert platform

This Subtask will utilise the idea of social networks (and social media as a tool to engage them) to disseminate, engage, collaborate and share learnings with the experts and stakeholders from participating or contributing countries.

(f) Subtask 0: Task Management

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

4. Results

The principal deliverables for Task XXIV will be as described below:

Deliverable 1: Database and/or Wiki of all experts, collected case studies, best practice, models, frameworks, definitions, contexts, evaluation metrics, references etc.

Deliverable 2: A 'report' of which the final format is yet to be finalised with the experts. Most likely it will be highly interactive, easy to access and comprised of easily understandable formats such as infographics, podcasts, webinars, Pecha Kucha slideshows, youtube videos, TED talks etc.

Deliverable 3: Surveys and post-evaluation of detailed case studies topics of particular interest to participating countries. The exact format for this deliverable will be decided upon with the participating countries to ensure the best possible format for different types of stakeholders. The case studies will be fed into the database/Wiki to be developed in the first Subtask.

Deliverable 4: Tool to evaluate 'successful outcomes' of DSM programmes for a variety of stakeholders (political, policy, community, industry, end user).

Deliverable 5: To do's and not to do's, priority research areas and ideas for pilots and/or action research projects for participating countries and stakeholders.

Deliverable 6: Social media expert platform and meeting place for (invited) DSM and behaviour change experts and implementers. This platform will include a wide range of social media tools to foster greatest ability to interact, share and discuss. Experts can upload blogs, videos, photos, documents, slides and their biographies. They can chat, start groups and discussion fora, invite other experts and tweet or facebook from the site. It is meant to provide a 'matchmaking' service to enable trans-national, inter-disciplinary teams of experts and end users to collaborate and bid for funding. This platform may in future be hosted on the DSM-IA Task XXIV website. It's current web address is www.ieadsmtask24.ning.com

5. Time Schedule

This Annex shall enter into force at such time as the Executive Committee, acting by unanimity of those Contracting Parties which have communicated to the Executive Director a Notice of Participation in this Annex, have signed off on the final Work Plan via ballot (July 11, 2012). This Annex shall remain in force until 10 July 2014, unless 8 or more countries are participating (this will extend the Task without further cost to December 31, 2014). Within the limits of the term of the Implementing Agreement, this Annex may be extended by two or more Participants in Task XXIV, acting in the Executive Committee, and shall thereafter apply only to those Participants.

6. Specific Obligations and Responsibilities of the Participants

Each Task Expert shall:

- (a) spend at least 42 person days on Task XXIV during the 2-year duration of the Task;
- (b) provide the Subtask leaders with detailed reports on the results of the work carried out and all relevant information and data;
- (c) give the best possible contribution to the content and reviewing of the draft reports of the Task and the Subtasks;
- (d) organise one expert meeting and/or stakeholder workshop in his/her home country over the course of the task;

- (e) contribute to the Task XXIV expert platform and provide case studies and country-specific input;
- (f) Support the OAs in disseminating the results of the work.

The participating countries will assign national experts (NEs) to Task XXIV on their notice of participation.

7. Specific Obligations and Responsibilities of the Operating Agent

In addition to the obligations enumerated in Article 6 of this Implementing Agreement, the Operating Agent shall:

- (a) Manage and coordinate the successful completion of the Task XXIV Subtasks and the work of the different Task Experts in accordance with the Task XXIV Work Plan.
- (b) Provide reports to the Executive Committee on the progress and results of the work performed under the Task XXIV Work Plan every six months.
- (c) Provide to the Executive Committee within three months after completion of all work under the Task XXIV Work Plan, a Final Management Report for its approval.
- (e) Use its best efforts, in collaboration with the Participants, to avoid duplication with activities of other related programmes and projects implemented by, or under the auspices of the Agency or by other bodies.
- (e) Market and disseminate information about Task XXIV to raise and maintain interest in, and understanding of, the Task and the IEA DSM Programme.

8. Funding

The Task XXIV Budget is set at EUR 240,000 based upon at least six participating countries. This amount will fund the Operating Agents' labour and expenses in managing and coordinating the successful completion of the Task XXIV Subtasks and in accomplishing its other obligations as Operating Agent. Each Participant in Task XXIV will contribute an equal share of the Task XXIV Budget.

If the number of Participants is more than six, the value of each Participant's share of the Task XXIV Budget will be EUR 40,000 but the Task will be extended and the programme of work revised accordingly. Any revision to the programme of work will be agreed upon by the Executive Committee, acting by majority of the Participants in Task XXIV.

The Operating Agent shall send invoices to the Participants at the commencement of the Task and thereafter at the thirteenth month. Payments from each Participant must be received by the Operating Agent no later than 30 days after the Participant's receipt of the Operating Agent's invoice.

If necessary, an increase in the Task XXIV Budget may be agreed upon by the Executive Committee, acting by unanimity of the Participants in Task XXIV.

In addition to its share of the Task XXIV Budget, each Participant shall bear all the costs of its own participation in Task XXIV, and the costs it incurs in carrying out its obligations under this Annex, including necessary travel costs.

9. Information and Intellectual Property

The principal results and outputs of this Task will remain confidential to the Participants for a period of 12 months after the completion of the Task, unless all Participants agree to an earlier release of information.

The Task is not anticipated to lead to the development of any new Intellectual Property. The ownership of any Intellectual Property that may arise shall be established in accordance with the terms set out within this Implementing Agreement.

10. Operating Agents

Dr Sea Rotmann, SEA - Sustainable Energy Advice, New Zealand
Dr Ruth Mourik, Duneworks, the Netherlands

11. Participants in the Task

The Contracting Parties which are Participants in this Task are the following:

The National Energy Research Institute (NERI), New Zealand

Agency NL, the Netherlands

ENOVA, Norway

Swedish Energy Agency, Sweden

Direction générale Energie, Belgium

Swiss Federal Office of Energy, Switzerland