D1.4: SAVE ENERGY Meeting at European Parliament

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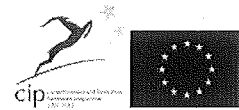
Executive Summary

Energy is an essential part of the European Union (EU), and is a necessary mean to maintain the life standard of EU today. Today the EU imports more than 50 % of its energy, often from regions that are politically unstable, amounting to a negative trade balance of some €240 billion every year. In 2006, the EU pledged to cut its annual consumption of primary energy by 20% by 2020, in sectors such as construction, manufacturing, energy conversion and transport. Once implemented, this would save €60 billion on the European energy bill and bring annual savings of between €200 and €1 000 for individual households.

A substantial part of energy consumption is buildings, which account for 40% of energy consumption and 36% of EU CO_2 emissions. The European Commission has made it one of its priorities to reduce this amount through a series of initiatives and legislation, as well as through R&D investments. This commitment has resulted in a series of pilots being developed as well as acting as a catalyst for private investment by companies, in particular in the energy production and with smart monitoring industries.

This document is D1.4: SAVE ENERGY Meeting at European Parliament. It provides a report of the meeting organized by the SAVE ENERGY project at the European Parliament to discuss the project outcomes and the resulting policy recommendations.

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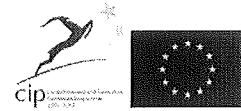
1. Introduction

A meeting was held at the European Parliament, Brussels on 26 May 2011.

The objective of the meeting was the introduction and discussion of the SAVE ENERGY project work and results to date, with an emphasis on developing strategy and policy recommendations to maximize the long-term impact of the project. The Green Paper was introduced in a presentation at the meeting.

Full meeting minutes are provided in the following pages.
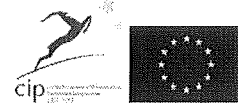
2. Meeting Minutes

Location: European Parliament, Brussels

Date: 26 May 2011: 08.00 – 9.15

Objective: Introduction and discussion of the SAVE ENERGY project work and results to date, with an emphasis on developing strategy and policy ideas to maximize the long-term impact of the project.

Participants:

European Parliament:	Maria Da Graça Carvalho MEP (Chair)
	Claude Turmes MEP
	Fiona Hall MEP
	Alfredo Sousa de Jesus
European Commission:	Jean-Marie Bemtgen (part of meeting)
SAVE ENERGY Team:	Álvaro de Oliveira
	Luís Mira Amaral
	José Basílio Simões
	Manuel Nina
	Douglas Thompson

1. Introduction to Meeting

Maria Da Graça Carvalho thanked the participants and provided a short introduction to the objective of the meeting.

2. ICT in Energy Systems

Luís Mira Amaral introduced a presentation on the use of ICT in energy systems – with a focus on ICT as a tool to manage energy demand and to assist in changing the behaviour of consumers.
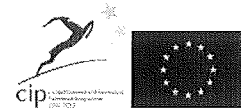
3. Introduction to the SAVE ENERGY Project

Alvaro Oliveira introduced the SAVE ENERGY Project. He highlighted the use of the Living Lab methodology, that allowed for the interaction of project stakeholders in all the five pilots. He also noted that the project mini-games had been successful in maximizing interest in the project. He gave an example of the Helsinki Pilot, in which children had been included in the Living Lab methodology, which had materially increased their understanding of energy efficiency issues. He noted that children had then used this increased awareness to also change behaviour in their own homes. He also emphasized that the project had become well-known nationally in Finland.

4. Practical Application of ICT in Demand Management

José Basílio Simões presented material on examples of practical application of ICT for demand management in many types of building environments. He highlighted the impact of implementing ICT in numerous cases.

5. Policy for Improving Energy User Behaviour in Public Buildings

Douglas Thompson introduced the SAVE ENERGY project's aim to develop policy ideas and options, based on the project results, to ensure that the lessons learned in the five pilots can be implemented throughout Europe. In particular, he presented the central message of the Green Paper that the SAVE ENERGY project is now developing. It was agreed that this Green Paper will be further developed and then presented to the European Parliament participants for discussion within a time period of three months.

General Discussion

There then followed a general discussion. A synopsis of this discussion is provided below.

Fiona Hall thanked the SAVE ENERGY team, and noted that up to 50% of the reduction in energy use in the five pilots could be attributed to change in user behaviour. She made two follow-up points:

(i)   Fiona Hall agreed that the five pilots had been successful. She asked what measures could be implemented to ensure that the effect in these pilots could be continued, after the project had ended. In asking this, she noted that it was often the case that experiments such as the pilots and the Living Lab methodology themselves can raise awareness and drive behaviour

change. Thus, further measures may be required to ensure that people continue to show the improved behaviour in the future.

Alvaro Oliveira agreed that this was a very relevant point, and noted that as the ICT infrastructure had now been implemented in the five pilots, the users would continue to be impacted by it. For instance, he emphasized that the real-time provision of energy use at key points in the buildings would still have an impact on behaviour after the project end.

(ii)   Fiona Hall asked how to ensure that people will purchase equipment with the required ICT features to help them manage their energy demand, when the benefits of their reduced demand could be long-run.

Mira Amaral gave the example of Portugal, in which the Portuguese Government has not yet passed increased energy costs, for instance resulting from the increase in energy generation from renewable sources, to consumers. He stated that soon such cost increases must be passed to consumers, which will drive a demand for ICT equipment such as smart meters, including in residential buildings.

Claude Turmes agreed that the SAVE ENERGY project work had been interesting. He noted that a proportion of commercial and official buildings in the EU will have to be annually refitted, and that energy consumption measures would be a key component such refits. He further noted that there was generally very high turnover of users in commercial buildings, which provides an opportunity to implement changes in energy systems at frequent intervals.

Claude Turmes asked whether it should be made an obligation for all commercial and official buildings to have sufficient energy sensors and energy management systems. He also asked for the SAVE ENERGY team's opinions on the possible business models for implementing ICT solutions for energy demand in residential buildings

José Basílio Simões stated that an obligation for commercial and official buildings to have sensors could lead to substantial energy savings. For instance, he noted that catering equipment is often not correctly configured and so used more energy that was required for the relevant catering output.

Mira Amaral and Alvaro Oliveira introduced the increasing number of different business models that are now being developed to help people finance the purchase and implementation of such smart meters. These include the formation of companies that pay for the initial investment, which are then are rewarded in relation to the subsequent energy savings. Mira Amaral and Alvaro Oliveira also noted that amortization of the ICT equipment often only took 1 – 1.5 years, which helped to allow the use of party-financed and revenue-sharing business models.

Alvaro Oliveira further noted that traditional energy companies may not be in the best position to introduce such new business models. Rather, new companies may have more incentive and flexibility to develop profitable business models.

José Basílio Simões highlighted the importance of dynamic pricing. He stated that it was important that consumers could change their demand in response to dynamic prices – and that such real-time pricing was thus fundamental for the use of ICT to reduce energy demand. Claude Turmes agreed that the implementation of real-time pricing was a key political issue.

Jean-Marie Bemtgen asked if the SAVE ENERGY project had identified any city examples in which all stakeholders (including the mayor, industry and population) had been happy with the business model used to implement ICT, and smart metering in particular. José Basílio Simões replied that there were some such cases in Ireland in which equipment had been implemented to make homes intelligent and increase the possibility of energy storage.

Jean-Marie Bemtgen identified that cars generally have over 1,000 sensors whilst houses had very few. He also noted that of these over 1,000 sensors in cars, very few were related to eco-driving, even though using such eco-driving methods could reduce car energy by 20%. He further noted that political support would be required to ensure that sensors are implemented in buildings, and that the whole gamut of energy use is important – including heating and cooling.

Jean-Marie Bemtgen stated that gender issues can be important in ICT use in residential buildings. He noted that around 90% of homes are operated by women who can have a more reserved approach to the use of ICT. He further stressed that this issue is related to the type of ICT – for instance that the use of smart phone is split approximately 50:50 between men and women, but that equipment such as gaming hardware is used very much more by men than women. José Basílio Simões agreed that this emphasized the importance of the design of the interface for smart meters.

Claude Turmes and Mira Amaral discussed the level to which households were influenced by potential financial savings in their decision to purchase ICT equipment such as smart meters. Jean-Marie Bemtgen highlighted that households were likely to implement such ICT solutions in the future because it increased the quality of life.

Jean-Marie Bemtgen then provided an introduction to the Smart Cities programme. He noted that the idea is to have three components: (i) Model cities to understand energy flows; (ii) Retro-fitting of existing buildings; and (iii) Smart heating-cooling grids. He further identified that new business models were required to drive aspects such as the transfer of waste heat from office buildings to residential buildings. He emphasized that the role of cities was to bring stakeholders together, and help to allow the development of new companies to provide the energy solutions and business models.
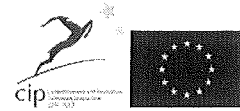
Closure of Meeting and Next Steps

The SAVE ENERGY team thanked the participants for their time and inputs, and in particular Prof. Maria da Graça Carvalho for chairing the meeting. The SAVE ENERGY team re-iterated that the information discussed in the meeting will be used to assist in the development of the Green Paper and other project outputs, to ensure the long-term impact of the project results on energy user behaviour.

The final Green Paper will be sent by the SAVE ENERGY team to all Parties represented in the European Parliament and members of the ITRE Commission.