

People have the Power



Consumers & Energy Efficient Products

41 projects making a difference - funded by the Intelligent Energy -Europe programme

> Executive Agency for SMEs

EUROPEAN COMMISSION Executive Agency for Small and Medium-sized Enterprises (EASME) Unit B1 – H2020 Energy http://ec.europa.eu/easme Twitter: @H2020EE

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Luxembourg: Publications Office of the European Union, 2014

ISBN 978-92-9202-162-7 doi: 10.2826/88552

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Introduction

This report provides a summary of a selection of projects related to the energy efficiency of products funded by the Intelligent Energy Europe IEE programme. The projects cover different product groups and activities, including, but not limited to, retailer campaigns, appliance testing, procurement, purchasing guidelines, awareness raising, market surveillance and enforcement monitoring of ecodesign and energy labelling directives.

Improving energy efficiency is arguably the most cost-effective way of reducing greenhouse gas emissions. Energy efficiency also brings numerous economic and social benefits. To support the integration of energy efficiency measures into national legislation, the European Commission has proposed several directives that have been adopted and are now in force. These cover broad areas where there is significant energy saving potential for equipment and products. Important examples include the Directive on Eco-design Requirements for Energy-using Products, the Directive on the Energy Labelling of Domestic Appliances and the Regulation on the Energy Efficiency Labelling Programme for Office Equipment (Energy Star). Considerable effort has gone into reducing energy consumption by appliances, but changes in lifestyle have offset a large part of this; therefore, there is a need to promote and improve energy efficiency.

IEE projects

The Intelligent Energy-Europe (IEE) programme supports projects aimed at putting the concept of 'intelligent energy' in practice. Intelligent energy solutions are those that consider all of the supply and demand options and attempt to find the optimum combination. The main areas covered in the IEE programme are energy efficiency, new and renewable resources and energy in transport as well as integrated initiatives that combine several of these or address more than one economic sector at the same time. Examples of this include new training schemes, promotion campaigns, or the transfer of good practice between EU countries.

The IEE programme is divided into four areas. Within the 'Energy efficiency and rational use of energy (SAVE)' area of IEE, the focus is on:

- Improving energy efficiency and the rational use of energy, in particular in the building and industry sectors;
- Supporting the preparation and application of legislative measures.



There are a number of activities (or themes) funded under IEE, these include:

- Strategic studies;
- Creation, enlargement or reorganisation of structures and instruments for sustainable energy development;
- Promotion of sustainable energy systems and equipment in order to further accelerate their penetration of the market;
- Stimulating investment in more efficient technologies to facilitate the transition from demonstration to the market;
- Awareness campaigns;
- The creation of institutional capabilities, development of information, education and training, the promotion and dissemination of know-how and best practices involving all consumers;
- Dissemination of results and cooperation with the Member
 States through operational networks; and
- Monitoring of the implementation and the impact of legislative and support measures.

There were relevant IEE calls for proposals in 2011 and 2012 for Energy Efficient Products and Consumer Behaviour respectively.

IEE and Energy Efficient Products

A relevant activity theme for increasing the take up of energy efficient products is funding for actions to help transform the market towards more energy-efficient products and systems, supporting and complementing the legislation in this area.



These initiatives aim at increasing the market share of energy efficient products and gradually phasing out less-efficient products through information campaigns, awards, benchmarking, voluntary agreements, exhibitions, training, and promoting best practice. The aim is also to enforce the application and enhance the awareness of EU labels and minimum energy efficiency standards, as well as suggesting life cycle approaches so that products are designed, manufactured, purchased, installed, used and disposed of in the most energy intelligent way.

There was a call for proposals under this theme in 2011. This resulted in five projects being funded with a total budget allocation of 6.4 million EUR. Two examples of product-related projects are ATLETE II and ComeOn Labels.

The ATLETE II project looks at washing machines, the second most frequently occurring household appliance. It follows on from ATLETE, which focused on energy labelling for fridges and freezers. The project tests the energy label compliance of 80 models and showed the real need for market surveillance. ATLETE II assesses manufacturers' compliance with energy labelling requirements and helps national authorities to cooperate on this issue. Fifty washing machine models will be tested during the project.

The ComeOn Labels project had a broader scope. Its aim was to enhance the visibility and credibility of the EU energy label in order to push for better checks on market compliance and the constant improvement of the energy efficiency of household appliances. More than 75 000 products from 330 shops in 13 countries were checked during the project.

IEE and Consumer Behaviour

Funding was for actions helping consumers adopt an energy efficient behaviour and choose the most energy efficient products among those covered under the Eco-design Directive.

There was a call for proposals under this theme in 2012. This resulted in five projects being funded, with a total budget of 6.8 million EUR.

One project aims to increase the involvement of civil society in market surveillance activities related to compliance with ecodesign and energy labelling legislation, whilst another addresses compliance of televisions to the energy efficiency legislation. Three projects on behaviour change programmes were funded:

- EURONET 50/50 MAX: aiming to achieve energy savings in 500 schools in 13 countries and return half of the energy costs saved as extra money for the school activities;
- UseITsmartly: addressing the specific and growing energyconsuming ICT sector (Information and Communication Technology); and
- Efficiency 2.1: developing a smart phone application to help consumers choose the most energy efficient products.

The remainder of this report provides summaries of 41 IEE projects related to product efficiency. The projects are grouped under the following six themes. It should be pointed out that, in line with an important principle of the IEE programme – that of considering the most 'intelligent' solution to an energy issue, most of these projects cover more than one aspect of energy efficiency. They have been grouped according to their most prominent issue:

- Awareness Raising & Consumer Campaigns
- Lighting
- Domestic Appliances
- Industrial and Commercial Products
- Green Procurement

More details on the IEE programme and the Executive Agency for Small and Medium-sized Enterprises (EASME) that administers IEE and other programmes for the European Commission are available online (http://ec.europa.eu/energy/intelligent/).

Awareness Consumer Campaigns

1. Efficiency_2.1 – New app to guide consumers in the purchase of energy efficient products

EcoGator Smartphone App



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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 01/04/2013 to TBD Contract Number: IEE/12/877/SI2.644762 Website: http://www.myeconavigator.eu

PARTNERS AND COORDINATOR

- Austrian Energy Agency, Austria
- Bond Beter Leefmilieu Vlaanderen vzw, Belgium
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Polish Foundation for Energy Efficiency, Poland
- ECOSERVEIS, Spain
- co2online gemeinnutzige Beratungsgesellschaft mbH Germany
- Guide Topten, France
- International Consumer Research Institute, Slovenia
- KEPKA Consumers Protection Centre, Greece
- European Environmental Bureau, Belgiur
- EVOLARIS, Austria



The "ecoGater" smartphone app will be offered as a personal advisor for energy saving shopping and living. It guides European consumers on two different levels: the shopping assistance mode and the day-to-day mode.

DURATION: 01/2013 - TBD

OBJECTIVES

This project aims to support customers in their purchasing decisions by providing up-to-date information about the most energy efficient products on the market. The project is implemented through "ecoGator," an easy-to-use smartphone application.

The app, which is essentially a personal advisor for energy saving shopping, guides European consumers on two levels: the shopping assistance mode and the day-to-day mode. The app specifically targets the online "early adopters," but could also serve the more than 70% of European households connected to the Internet.

Smartphone optimised web portals like Euro-Topten and others are used to raise awareness about the benefits of energy efficient and sustainable products. In addition, Facebook, Twitter, and other social media channels encourage users to share this information with friends and family.

RESULTS

- Roll out of an "Efficiency Adviser" smartphone application for product identification and in-store advice, covering the most relevant consumer decision-making criteria: cost, product quality and energy efficiency.
- "Efficiency 2.1" versions and 10 co-branded versions downloaded a total of 80,000 times.
- Establishment of web portals and social media channels dedicated to sustainable and energy efficient products and their energy and eco-conscious use. These portals benefit from cooperation with existing initiatives and programmes like top lists, independent and product testing sites, and labelling programmes.
- Involvement of stakeholders and experts, kept informed through an expert-generated news feed fed into an EU-level platform.
- Four million households will be reached by means of the key actor's promotion channels, especially energy utilities, online shopping portals, online media and NGOs.
- Expected savings of 155 GWh/year up to 2015.

BUDGET: EUR 1714044 (EU CONTRIBUTION: 75%)

2. 50/50 European Network of Education Centers spreads across Europe

Euronet 50/50 Max

Euronet 50/50 max is a European project that encourages energy efficiency in schools and public buildings through the application of best practices in the use and management of energy. The Project is developed in 500 schools and 48 public buildings in 13 european countries. The methodology of the 50/50 is to introduce financial incentives to energy savings. The city council and the building sign a commitment where the first agrees to return 50% of the cost savings achieved, and the building is committed to a set of best practices and lead the project.

DURATION: 04/2013 - 04/2016

OBJECTIVES

Euronet 50/50 Max encourages energy efficiency by introducing a financial incentive scheme for energy savings, leading to better use and management of energy in schools and public buildings.

Under the project, the city council and the building user sign a commitment where the council agrees to return 50% of the cost savings from energy consumption reduction, and in turn the building user commits to implement a set of best practices for energy efficient behaviour and no/low-cost measures. The other 50% is a net savings for the public authority that pays the bills.

As a result, the school gains additional financial resources, the managers of school buildings enjoy lower energy costs, the school population (students, teachers and caretakers) is trained in practical energy efficiency solutions and energy efficient schools contribute to local energy and climate change policy targets.

EURONET 50/50 Max aims for a minimum annual energy reduction of 8% on average for all public buildings involved.

The concept was developed by the Hamburg City Council in 1994 under the name of Fifty/Fifty.

RESULTS

- Strategic roll out of 50/50 with the aim to integrate the 50/50 concept in at least 100 local strategies, 16 educational strategies, 16 regional plans and 13 national plans.
- Extend the 50/50 Network around Europe, involving a minimum of 500 schools and 48 other public buildings from 13 European countries that will implement the 50/50 methodology while creating a permanent feedback and network among them.
- Set up energy teams in the participating schools and public buildings.
- Consolidate and adapt the tools to implement 50/50 in secondary schools and in non-education buildings

BUDGET: EUR 1590479 (EU CONTRIBUTION: 75%)



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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 18/04/2013 to 17/04/2016 Contract Number: IEE/12/989 Website: www.euronet50-50max.eu

PARTNERS AND COORDINATOR

- Barcelona Provincial Council, Spain
- EAV Energetická Agentura Vysociny, z. s. p. o., Czech Republic
- Region of Crete Regional Energy Agency of Crete, Greece
- Agenzia Fiorentina per l'Energia srl, Italy
- Association of Municipalities Polish Network «Energie Cités», Poland
- City of Zaoreb. Croatia Energy Agency of Sa
- Saleska and Koroska, Slovenia
- Unabhängiges Institut für Umweltfragen e.V., Germany
- University of Vaasa, Finland
- Regional Energy Agency of Kaunas, Lithuania
- Province Huelva, Spair
- Riga Managers School, Latvia
- Cyprus Energy Agency, Cyprus
- Climate Alliance Austria, Austria
- Local Agency for Energy and Environment, Italy
- TOP-ENVI Tech Brno, Czech Republic



3. Action in Low Income Households to Improve Energy Efficiency through Visits and Energy diagnosis

ACHIEVE



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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 21/04/2011 to 20/04/2014 Contract Number: IEE/10/431/SI2.589429 Website: http://www.achieve-project.eu

PARTNERS AND COORDINATOR

- CLER, Network for the energy transition, France
- Energy Agency of Plovdiv, Bulgari
- Groupe Energies Renouvelables Environneme
- Severn Wye Energy Agency Limited United Kingdom
- Caritas Association Frankfurt Germany
- Focus Association for Sustainable Development, Slovenia
- Institut de l'Ecologie en Milieu Urbain, France



If the interest of such a project can be rapidly understood by the local professionals and stakeholders, the most challenging part may be to actually get them involved into the action. Once you've reach that, you have the satisfaction to see the targeted households start applying for the service, opening their doors, and making concrete energy and water savings.

DURATION: 04/2011 - 04/2014

OBJECTIVE

ACHIEVE helps low-income households create significant savings on their energy consumption and bill while simultaneously giving value to existing proposals that have proved to be economically, socially, and environmentally efficient. Overall, ACHIEVE aims to contribute to both practical and structural solutions for reducing fuel poverty in Europe. Practical solutions include energy use and behaviour, while structural solutions include retrofitting buildings.

Through the programme, the long-term unemployed, students and volunteers are mobilised and trained to develop a large-scale energy advisory service for low-income households that are facing difficulties with their energy bills. The service will understand consumers' consumption habits, check appliances, distribute and install energy and water-saving devices, provide advice on how to implement energy saving measures, analyse long-term solutions, and link local actors within a local action plan.

RESULTS

- Focus groups of 15-30 people, including a variety of local actors such as local authorities (municipalities, county councils), social housing providers, social welfare and charity organisations, energy agencies and services, schools, and households.
- Produced such materials and tools as: training modules, guides for hiring advisors, calculation tools to assess the actual and future consumptions of the households before and after a visit, among others.
- More than 2000 visits performed by 150 trained advisers since its launch in February 2012. In each visited household, an average of EUR 44 of various free energy and water saving devices were distributed, generating a saving of EUR 150 and 230 kg of CO₂ per year.

BUDGET: EUR 1307536 (EU CONTRIBUTION: 75%)

4. Energy Check for Low-Income Households EC-LINC

Energy-Check for Low Income Households (EC-LINC) established tailored information and consultation approaches to assist low income households in saving energy and water at home.

DURATION: 04/2011 - 02/2014

OBJECTIVE

Private households make up 25% of the EU's energy needs, and are thus an important target group for reaching European objectives on energy efficiency and CO_2 reduction. Energy Check for Low-Income Households (EC-LINC) provides information and in-home consultation approaches to assist low-income households in saving energy and water at home.

Low-income households often cannot afford the initial investment in highefficiency domestic appliances, and, therefore, need a stimulus to become more energy efficient. In addition, language and social barriers often make it difficult to inform the target group about energy efficiency issues. To remedy this, EC-LINC establishes tailored information and consultations. These consultations include advice on saving energy and free installation of such low-cost devices to save water and energy such as compact fluorescent lamps, switchable plug connectors, and tab aerators.

RESULTS

- Development and implementation of replicable energy consultation schemes tailored for low-income households to achieve significant and quantifiable savings of electric power, water and heating energy through low-or-no-cost measures.
- Raising awareness for the rational use of energy in low-income households via in-home consultations and such immediate actions as installing small saving devices.
- Re-integration of long-term unemployed or low-skilled people into the regular job market by qualifying them to advise households on saving electric power, water and heating energy.
- Bridging the gap between EU policies for energy efficiency in private households and the special needs of low-income households.
- Organising training courses for 24 energy advisors and providing on-site consultations in 1,000 low-income households.
- Savings of 1,305 kWh/household/year.

BUDGET: EUR 806636 (EU CONTRIBUTION: 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 15/04/2011 to 14/02/2014 Contract Number: IEE/10/189/SI2.589411 Website: http://www.ec-linc.info/

- Berliner Energieagentur GmbH; Germany
- e7 Energie Markt Analyse GmbH; Austria
- Energia Klub Környezetvédelmi Egyesület, Hungary
- Koepel van Milieuondernemers in de Sociale Economie, Belgium
- Changeworks Resources For Life, United Kingdom
- Caritasverband für das Erzbistum Berlin e.V., Germany
- Die Energie- und Umweltagentur NÖ, Austria
- Reparatur- und Service-Zentrum R.U.S.Z, Austria



5. Improving Cold Storage Equipment in Europe

ICE-E



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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/05/2010 to 30/04/2012 Contract Number: IEE/09/849/SI2.558301 Website: http://www.ice-e.eu

PARTNERS AND COORDINATOR

- London South Bank University, United Kingdom
- Technical University of Sofia, Bulgaria
- Danish Technological Institute, Denmark
- Limburg Catholic University College, Belgiur
- Van Sambeeck Management Services B.V, Netherlands
- Carbon data resources Ltd, United Kingdom
- Food Research Institute Prague, Czech Republic
- University Padova, Italy



Energy usage in cold food storage equipment can be high and was found to vary considerably in the ICE-E project. Work within ICE-E found that there was considerable potential to reduce the energy used in cold storage. Many of the improvements were very simple and low cost.

DURATION: 05/2010 - 04/2012

OBJECTIVE

In Europe, there are 60-70 million cubic meters of cold storage for food. In 2002, the IIR (International Institute of Refrigeration) estimated that cold storage use between 30 and 50 kWh/m³/year. Improving Cold Storage Equipment in Europe (ICE-E) aimed to reduce the energy consumption and greenhouse gas emissions from European cold storage by implementing energy efficient equipment.

Unfortunately, cold store operators are often reluctant to install new equipment without sufficient information on the savings that can be achieved. The main goal of ICE-E was to overcome these reservations through a combination of knowledge-based information packages, mathematical models and education programmes.

ICE-E worked with cold store operators to make informed decisions on equipment and to select and identify cost-efficient paybacks to their businesses. In addition, the project developed a benchmark system for cold store operators that allows them to compare performance against others users within the sector.

RESULTS

- Collected and analysed information on the energy consumption of 329 cold stores to understand the most important factors affecting their use of energy.
- Data collected showed there was large variability in the energy used by cold stores. The Specific Energy Consumption (SEC) varied between 4 and 250 kWh/m³/year for chillers, between 6 and 240 kWh/m³/year for freezers and between 23 and 157 kWh/ m³/year for mixed stores. The data collected in this survey demonstrated that 47% of chilled stores, 35% of frozen stores and 50% of mixed stores had an SEC of less than 50 kWh/m³/year.
- Data showed which factors most affect the energy used by cold stores, providing a useful framework to be considered when creating a benchmarking or labelling scheme.
- Twenty-eight audits were carried out to draw generic lessons on how to reduce the energy consumption of cold stores.

BUDGET: EUR 1516614 (EU CONTRIBUTION: 75%)

6. Empowering Customers to Save Energy by Informative Billing EMPOWERING

Within the EMPOWERING project, 4 ambitious European utility companies, supported by an international team of university researchers, social scientists and energy experts, join forces to empower customers to positively manage their energy consumption, says Stoyan Danov, Project Coordinator.

DURATION: 04/2013 - 09/2015

OBJECTIVE

Under the EMPOWERING project, four European utility companies – with support from an international team of university researchers, social scientists, and energy experts – are empowering customers to positively manage their energy consumption.

The project aims to help 270,000 customers save energy and money by providing information on their metres and bills. Implementations will be evaluated in terms of technical feasibility, economic viability, user acceptance and satisfaction, and critical factors for more widespread applicability. Outputs include assessment of customer expectations, training and capacity building services, implementation in real operation, and evaluation of results in terms of measurable energy performance improvements and client response.

RESULTS

- Identify and evaluate the most efficient feedback mechanism to empower households in saving energy.
- Launch a platform focused on empowering 270,000 energy users by providing energy services that respond to their demands.
- Provide insight-based services (such as informative bills) and software tools for household empowerment.
- Create guidelines and recommendations for energy market stakeholders and policy makers.

BUDGET: EUR 1956995 (EU CONTRIBUTION 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 01/04/2013 to 30/09/2015 Contract Number: IEE/12/697 Website: http://www.iee-empowering.eu Twitter: @EMPOWERING IEE

- List Map: International Centre for Numerical Methods
 in Engineering, Spain
- HESPUL, France
- Comune di Reggio Emilia, Italy
- Politecnico di Torino, Italy
- Universiteit Gent / Ghent University, Belgium
- Linz Strom GmbH, Austria
- SINERGIE Soc. Cons. a r.l., Italy
- IREN ENERGIA SPA, Italy
- Gaz électricité de Grenoble, France
- GISCE-TI SL, Spain
- El Gas SA, Spain
- Agence Locale de l'Energie et du Climat o l'agglomération grenobloise, France



7. Young people and media for a low energy footprint (E-BITS)

Energy BITS (E-BITS)



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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 21/06/2011 to 21/09/2013 Contract Number: IEE/10/256 Website: http://www.energybits.eu

PARTNERS AND COORDINATOR

- Energia-Da Ltd, Italy
- Brunel University, United Kingdo
- HafenCity University Hamburg, Germany
- Aristotle University of Thesssaloniki, Greece
- Brook Lapping Productions Ltd., United Kingdom
- Media Education, Italy
- Research Academic Computer Technology Institute, Greece
- Radio Television of the Belgian French-speaking Community, Belgium
- Radiotelevision Slovenia, Slovenia
- Jaromir Herskovic HERAFILM
- Radiotelevisione Italiana, Italy
- Tralalere SA, France
- Television of Catalonia, Spain



Energy bits has been a fantastic project due to the interaction of many different players. Students, universities professors and media broadcasters: everybody has the same aim energy saving. The winning point of the project has been the consortium and the way each partner engaged with the action and was able to engage itself, the kids and the youngsters of 12-18 years old. I think a project that is still running on millions of viewers as an indicator after the end of its formal life time, is only a very positive experience. I am personally very proud and honoured to have coordinated such an experience, and I hope that further energy bits activities could be achieved in the future years.

DURATION: 06/2011 - 09/2013

OBJECTIVE

Energy BITS is a multi-media project and campaign geared towards stimulating behavioural change in young people in the direction of efficient and sustainable use of energy. The project engages young people through user-generated content that reinforce sustainable energy messages.

Through 24 documentaries, interactive web documents and games, E-BITS goes beyond standard communication methods to distribute this information. The campaign also covers broadcasts on national TV channels and such satellite-theme channels as science, education and culture, as well as web streaming and gaming platforms.

RESULTS

- A series of 30 professional documentaries reached an overall audience of around 20 million people through broadcasting and webcasting.
- A web interactive documentary was promoted through all media partners.
- A "Serious Game," an innovative tool that appeals to young people and allows for an active pedagogy anchored in problem solving and the ability to make decisions in real life, enhanced young students' participation in energy issues.
- A campaign "Have Your Say" engaged young people in the energy conversation by asking them to produce user-generated content, such as videos. 232 video stories were written and directed by young non-professionals.
- Project activities led to the development of an E-Bits Smartphone App, available on the android store.

BUDGET: EUR 1963899 (EU CONTRIBUTION 75%)

8. Environmental peer-to-peer education for youths with focus on smart use of information and communication technologies

USEITSMARTLY

There is a lack of information on the impact IT usage has on the environment. With uselTsmartly, we want to close this gap, aiming especially at young people as they are Europe's future! Therefore we use a participatory approach, which means developing solutions for smart and green IT use together with youth.

DURATION: 06/2013 - 04/2016

OBJECTIVE

UseITsmartly uses a participatory approach to inform young people about the impact of IT usage on the environment. The goal is to communicate with and through young students about creative new concepts for smart IT use.

As part of the project, participants will learn to reduce energy consumption related to IT usage, develop new methods to facilitate change and build capacity for energy efficient IT use. The interactive programme involves mapping IT user practices, behaviour and technology change through focus groups, creativity workshops that explore innovative solutions, and the development of peer education in partner countries.

RESULTS

- Create a toolbox for the development and implementation of innovative IT-focused, demand-side management programmes for a particular target group, which will foster initiatives towards energy-efficient IT use on local, regional and national levels.
- Develop didactical concepts for training IT-peers in each country, building the capacity for smart and green IT use and improving the energy and IT literacy of young people.
- Reach approximately 25.000 adolescents, as well as their teachers and families through communication activities done both in-person and in cooperation with IT-peers (e.g. via social media).

BUDGET: EUR 2 183 064 (EU CONTRIBUTION 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Consumer behaviour Duration: 03/04/2013 to 02/04/2016 Contract Number: IEE/12/997 Website: http://www.useitsmartly.com

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- Linköping University, Sweden
- University of Wuppertal, Germany
- Inter-University Research Centre for Technology, Work and Culture, Austria
- Norwegian University of Science and Technology, Norway
- Aalborg University Danish Building Research Insittute, Denmark
- Radboud Universiteit Nijmegen, Netherlands
- Dune Works B.V., Denmar
- Smart Homes, Netherlands
- Umwelt-Bildungs-Zentrum, Austria



9. Reducing Energy Consumption: Making Efficient Products the Normal and Best Choice for Consumers, Retailers and Manufacturers

EURO-TOPTEN



CONTACT

Agence de l'Environnement et de la Maîtrise de l'Energie, France **Contact Point:** Therese Kreitz **E-Mail**: therese kreitz@ademe.fr **Tel**: +33.04.9395.7984

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 31/10/2008 Contract Number: EISAV/EIE/05/021/2005 Website: http://www.topten.info

PARTNERS AND COORDINATOR

- Intelligent Energy Europe
- European Climate Foundation
- VDE Institut, Verband der Elektrotechnik, Germany
- World Wide Fund for Nature Belgium vzw/asbl, Belgiu
- State Secretariat for Economic Affairs SECO, Switzerland
- Agence de l'Environnement et de la Maîtrise de l'Energie. France
- Österreichische Energieagentur, Austria
- World Wide Fund for Nature Belgium vzw/asbl, Belgium
 WWE European Policy Office Belgium
- WWI European Folicy Office, bergium
- Seven, Stredisko pro erektivni vyuzivani energie, o.p.s., Czech Republic
- Motiva Oy, Finland
- Vonds Mondial pour la Nature France, France
 Wuppertal Institut für Umwelt, Klima, Energie GmbH in
- Accession italiana ner il NAVE for Nature ONLIC
- Associazione italiana per it wwr for Nature ONLOS, Italy
- · Ecofys b.v., Netherlands
- Fundacji na Rzecz Efektywnego Wykorzystania Energii, Poland



The Topten project in publicly displays the most energy efficient products for 18 European countries customised to their markets, and free of charge. Topten is independent from industry and highlights the savings in both electricity and costs compared to a conventional product.

DURATION: 01/2006 - 12/2014

OBJECTIVE

There are thousands of refrigerators, TVs, cars, and other kinds of energy consuming equipment on the market, but consumers do not have the time or information to compare. The Topten project changed this by showing consumers best products via an easy-to-navigate platform customised for each country. The Topten website displays the most energy efficient products, customised to 18 European countries.

The websites were promoted through communication activities with the media, which in turn gives Topten strength to organise a dialogue with manufacturers at a European level, set ambitious criteria for product selection and advise large buyers and authorities developing policies on efficient products.

Topten teams are composed of energy specialists, environmental NGO and consumer associations.

RESULTS

- Launched 20 Topten websites presenting best products in more than 50 categories.
- Home page (www.topten.eu) is the only review of the most energy efficient appliances available in Europe.
- Following extensive communication activities, impressive media coverage worth EUR 2,1M (only for a sample of six of the partners) was achieved.
- Organised a competition on the most original / effective promotion campaign for energy efficient products, with winners exhibiting at a product exhibition.
- Inspired TopTenAct, a follow up project that encompass Horizon 2020 projects.

BUDGET: EUR 1154381 (EU CONTRIBUTION 75%)

10. Involvement of Civil Society in Market Surveillance of Ecodesign and Energy Labelling

MARKETWATCH



The MARKETWATCH project aims to involve civil society in market surveillance of ecodesign and energy labelling.

DURATION: 03/2013 - 03/2016

OBJECTIVE

The MARKETWATCH project is building awareness and increasing involvement of civil society organisations in market surveillance in order to encourage compliance with the eco-design and energy labelling directives – benefitting consumers across Europe.

It is estimated that around 10% of the expected savings from the EU Ecodesign and Energy Labelling Directives will be wasted due to noncompliant products. This translates into more than 100 TWh of annual final energy savings that could be missed, or as much as the current residential electricity consumption of Eastern Europe.

To remedy this, MARKETWATCH is launching a number of specific activities and operations that civil society organisations will conduct towards, including large-scale physical and online visits to verify the proper implementation by manufacturers and retailers of some of the ecodesign and energy labelling requirements.

RESULTS

- Raise awareness in civil society on the importance of enforcing ecodesign and energy labelling regulations, as well as better centralise and share best practices in this area.
- Use and mobilise test activities from independent organisations to draw interesting conclusions on suspicious products or brands and on the pertinence of official measurement standards.
- Engage in regular and constructive dialogue with national authorities to stimulate and inspire them, as well as establish procedures to better take into account the activities and findings from civil society organisations in market surveillance.
- Use targeted and escalating communication means to substantially increase the pressure on suspicious cases and free riders identified in prior tasks.

BUDGET: EUR 2264160 (EU CONTRIBUTION 75%)



CONTACT

The Energy Saving Trust Limited, United Kingdom Contact Point: Frances Downy E-Mail: Frances.Downy@est.org.uk Tel: +44(0)20 7227 0387

N BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 29/03/2013 to 29/03/2016 Contract Number: IEE/12/858 Website: http://www.market-watch.eu

- ANEC, European consumer voice in standardisation
- The Danish Ecological Council, Denmark
- Verbraucherzentrale, Germany
- Forbrugerrådet Tænk, Denmark
- Global 2000, Austria
- Legambiente Onlus, Ital
- Quercus Associação Nacional de Conservação da Natureza, Portugal
- SEVEn. The Energy Efficiency Center. Czech Re
- European Environmental Citizens' Organisation for
- International Consumer Research and Testing Limited
 United Kingdom
- European Environmental Bureau, Belgium
- UFC Que Choisir, Fran
- Ecology and Development Foundation, Spain



11. Schools Panel for High Energy Efficiency Products

SHEEP



CONTACT

Istituto Tecnico Industriale Statale «Alessandro Rossi», Italy Contact Point: Mr Lorenzo Gaggino E-Mail: dirigente@itisrossi.vi.it Tel: +39 0444 500566

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/06/2010 to 31/05/2013 Contract Number: IEE/09/912/SI2.558315 Website: http://www.aplusplus.eu

PARTNERS AND COORDINATOR

- Henri Coanda Vocational High School, Romania
- Chamber of Commerce and Industry Vratsa, Bulgaria
- Economic High School Arad, Romania
- Association for Promotion of Natural and Cultural Heritage of Banat and Crisana "Excelsior", Romania
- Professional Mechanoelectrical High School "General Ivaj Bachvarov" Sevlievo, Bulgaria
- Western University "Vasile Goldis" Arad, Romania
- Nova Multimedia, Italy
- Istituto Tecnico Industriale Statale «Alessandro Rossi», Italy
- ZIEL 21 Zentrum Innovative Energien e.V., Germ
- Centre for Renewable Energy Sources, Greec
- Sogesca s.r.l., Italy
- High School For commerce Guido Piovene, Italy
- Municipality of Santorso, Italy
- European Center for Quality Ltd, Bulgaria
- Technical University of Gabrovo, Bulgaria
- Gymnasium Gröbenzell, Germany
- Technical College and Upper Vocational Schoo
- CHambers group for the development of Greek isles
 Greece
- Epal of Korydallos, Greece





DURATION: 06/2010 - 05/2013

OBJECTIVE

SHEEP increased the market share of energy efficient products by adding value to the position of such key actors as technical and commercial schools, sales personnel, and trade and commercial associations – allowing them to better inform and support consumers on making more sustainable purchases.

The project strengthened the knowledge and skills of the schools and energy efficient product market operators in such aspects as sustainable consumption and production (SCP), life cycle assessment (LCA), and ecoand energy labels. It also focused on increasing the active involvement of market actors, sharing experiences and recommendations with policy makers and promoting the adoption of the 'SHEEP' concept both during and after the project.

Pupils became instrumental in the SHEEP campaigns, with schools engaging families and pupils engaging consumers. Similarly, associations act toward market actors; sellers and installers towards their customers.

RESULTS

- 5,961 questionnaires collected from families, 62 from schools, 35 from policy makers, 160 from installers, 93 shops, 22 from manufacturers, 65 from energy agencies.
- Training activity numbers: Germany 12,405 students; Greece
 2,100 students, 10,200 families, 30,600 consumers; Bulgaria –
 4,800 students; Romania 9,320 students, 10,000 families; Italy
 5,209 students.
- Training of 277 sellers, 304 installers, 127 manufacturers, 75 associations and 68 policy makers.
- ✓ 2,000 social media fans.

BUDGET: EUR 1410019 (EU CONTRIBUTION 75%)





12. The European GreenLight Programme in New Member States

NEW GREENLIGHT



CONTACT

SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic **Contact Point:** Mr. Juraj Krivošík **E-Mail**: juraj.krivosik@svn.cz **Tel:** +420 224 252 115

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 31/12/2008 Contract Number: EISAV/EIE/05/192/2005 Website: http://www.eu-greenlight.org

PARTNERS AND COORDINATOR

- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Center for Energy Efficiency, Bulgaria
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Ekodoma, Latvia
- Lithuanian Energy Institute, Lithuania
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Romanian Agency for Energy Conservation, Romania
- Slovenská Energetická Agentúra, Slovakia
- Jozef Stefan Institute, Slovenia



The New GreenLight project aimed to promote the EU's GreenLight programme to new EU members, highlighting the importance and benefits of energy efficiency in the lighting sector.

DURATION: 01/2006 - 12/2008

OBJECTIVE

New GreenLight extended the original GreenLight project, which was launched in 2000, to highlight the importance and benefits of energy efficiency in the lighting sector. Under the GreenLight project, EU member states and private organisations committed to reducing energy use for lighting. The New GreenLight built from this momentum, aiming to attract at least 101 new partners who were prepared to make the same commitment and achieve energy savings of more than 18GWh per year.

RESULTS

- Partners awarded the Greenlight Logo have achieved energy savings of 42.3 GWh, much more than the 18 GWh initial estimate.
- Attendance at conferences and seminars exceeded expectations. Over 290 people attended seminars, while more than 1,100 attended conferences (500% more than expected).
- Up to 15 new GreenLight partners and nine new endorsers joined the programme in each participating country.
- Substantial GreenLight promotional material produced in eight new languages

BUDGET: EUR 862 985 (EU CONTRIBUTION 50%)

13. Pro-Efficient Cold & Lighting Products

PROEFFICIENCY

PRO-EFFICIENT COLD & LIGHTING PRODUCTS' overall aim was to promote voluntary initiatives for the most eco-energy efficient products. The activities were focused in the residential and tertiary sectors of Spain, Germany, Austria, Poland, Romania and United Kingdom.

DURATION: 01/2006 - 12/2008

OBJECTIVE

PROEFFICIENCY promoted voluntary initiatives for the most energy efficient products. Specifically, the project focused on the residential and tertiary sectors in Spain, Germany, Austria, Poland, Romania and the United Kingdom.

The project promoted energy efficient cold and lighting products in the household and tertiary sectors by using promoter initiatives and consumer projects aimed at residents, tenants and shops. Activities involved an analysis of both EU and national projects having similar objectives, along with organising conferences and workshops.

RESULTS

- More than 320 key actors, including national and local energy agencies, were brought together in various forums to exchange experiences about efficient cold and lighting products.
- Twenty promoter initiatives are underway, involving manufacturers of lighting and cold products, retailers and commercial buildings, university departments, energy efficiency advice centres, national energy agencies and social buildings.
- Fifteen consumer projects focusing on resident associations, local government, architects, consumer organisations, and owner associations are underway.
- Monitoring results in both the refrigerator and lighting markets led to an estimated energy savings of 2 000 MWh, which equates to more than 3 350 tons of CO₂ emissions.
- Two technical guidebooks were produced and translated into languages of the participating countries, as well as brochures, posters and stickers.

BUDGET: EUR 939370 (EU CONTRIBUTION 50%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 31/12/2008 Contract Number: EISAV/EIE/05/218/2005

- ESCAN, S.A., Spain
- 0.Ö. Energiesparverband, Austria
- Gertec GmbH Ingenieurgesellschaft, Germany
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Institutul de Studii si Proiectari Energetice, Romania
- Severn Wye Energy Agency Limited, United Kingdom



14. Bottom Up to Kyoto BUTK



CONTACT

European Lamp Companies Federation aisbl, Belgium Contact Point: Jürgen Sturm E-Mail: juergen.sturm@elcfed.org Tel: +32 2706 86 08

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2007 to 31/12/2009 Contract Number: EISAV/EIE/06/010/2006

PARTNERS AND COORDINATOR

- European Lamp Companies Federation aisbl (EU)
- Association Européenne de l'Installation Electrique
- European Union of Electrical Wholesalers
- Võru Linnavalitsus, Estonia
- Berliner Energieagentur GmbH, Germany
- Gmina Raciechowice, Poland
- Obcina Slovenska Bistrica, Slovenia



"BUtK (Bottom Up to Kyoto)" aimed at overcoming barriers to energy efficiency lighting. It helped municipalities in Central and Eastern Europe to upgrade their street lighting and achieve significant energy costs reduction thanks to the use of tools and methodology that are available for use by other municipalities.

OBJECTIVE

BUTK overcame barriers to energy efficient lighting by helping three municipalities located in Central and Eastern Europe utilise tools and methodologies to upgrade their street lighting.

Successful implementation led to significant reductions in energy costs across all participating municipalities. The cities are now well positioned to serve as models for other cities to emulate.

RESULTS

- Analysed and reported on the key legal aspects for the implementation of Third Party Financing project for public street lighting and indoor lighting in partner municipalities.
- Collected street and/or office lighting data for each municipality, as well as calculating CO₂ emissions and potential savings attributable to lighting.
- Three technical and economic feasibility studies identified optional technical solutions, related costs and benefits in terms of CO_2 reduction, clearly indicating the "payback period".
- Prepared, published and signed public tenders for modernising street and road lighting systems in three countries.
- Installed efficient street lighting systems in two countries, with installation contracted in the third.
- Reduced CO₂ emissions in three partner municipalities by over 40%.
- Launched a multilingual website containing relevant documents for potential replication on larger a scale.

BUDGET: EUR 657 637 (EU CONTRIBUTION 48.22%)

15. European Efficient Residential Lighting INitiative

ENERLIN

The EnERLIn project collected and analysed information from several European countries, organised promotional campaigns that contributed to increased awareness of residential end-users of energy efficient lighting solutions.

DURATION: 01/2006 - 12/2008

OBJECTIVE

Within the EU, lighting consumes 14% of all electricity consumption, representing a substantial potential for energy savings. Old and inefficient lighting technology consumes large amounts of unnecessary energy, creating a cost burden for local authorities, businesses and taxpayers – not to mention producing large amounts of CO₂. By replacing just one incandescent lamp per household, a gain of 11 TWh, 1.2 Mt of less CO₂ per annum can be achieved.

ENERLIN increased awareness about energy efficient lighting solutions among residential end-users across Europe. The project aimed to transform the lighting market, focusing on promoting Compact Fluorescent Lamps (CFLs) for residential use. Specifically, its objective was to substantially increase the efficiency of indoor residential lighting in a number of EU Member States by increasing the application of CFLs within this sector.

RESULTS

- The European CFL Quality Charter was amended to take into account new requirements for CFLs in accordance with EcoProfile and EuP directives.
- Produced and tested promotional materials during several campaigns across regions and countries.
- Published papers in general and specialised press that addressed various targets (end-users as well as professionals) and organised interviews as well as TV and radio broadcasts in several countries.
 Organised various training activities.
- Addressed different audiences via a wide use of new communication and information technologies (web, web TV, netlessons, e-learning).
- An estimated 2,000,000 people were impacted by the ENERLIN actions during the project's duration.

BUDGET: EUR 1870950 (EU CONTRIBUTION 49%)



CONTACT

Université Toulouse 3 - Paul Sabatier, France Contact Point: Georges Zissis E-Mail: georges.zissis@cpat.ups-tlse.fr Tel: +33-561556996

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 31/12/2008 Contract Number: EISAV/EIE/05/176/2005 Website: http://www.enerlin.enea.it

- Université Toulouse 3 Paul Sabatier, France
- e-ster bvba, Belgium
- Sofia Energy Centre, Bulgary
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- ELFOR, Dansk Eldistribution, Denmark
- OÜ Energiasäästubüroo, Estonia
- Berliner Energieagentur GmbH, Germany
- Central European University Share Company/Central European University Budapest Foundation, Hungary
- Ente per le Nuove Tecnologie, l'Energia e l'Ambiente, Italy
- Ekodoma, Latvia
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Agência para a Energia, Portugal
- Universitatea Tehnica din Cluj-Napoca, Romania
- Respect Europe of Sweden, Sweden



16. Energy Saving Outdoor Lighting





energy saving outdoor lightning

CONTACT

Berliner Energieagentur GmbH, Germany Contact Point: Sabine Piller E-Mail: piller@berliner-e-agentur.de Tel: +49 30 293330-13

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 19/04/2010 to 18/04/2013 Contract Number: IEE/09/927/SI2.558319 Website: http://www.esoli.org

PARTNERS AND COORDINATOR

- Berliner Energieagentur GmbH, Germany
- European Lamp Companies Federation aisbl, Belgium
- ELTODO EG, Czech Republic
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Gruppo Impresa Finance s.r.l., Italy
- Ekodoma, Latvia
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Black Sea Regional Energy Center, Bulgaria
- City of Gothenburg, Sweden
- Javna Razsvetljava, Slovenia
- Luminext, The Netherlands
- City of Oslo, Norway
- Spanish Society of Electrical constructions, Spain
- Selc Ireland Limited, Ireland
- SITO Oy, Finland
- Building and Civil Engineering Institute ZRMK, Slovenia



ESOLi offered information and advice to municipalities on specific issues and supported them through workshops and trainings, a best practice catalogue and several documents like tendering manual and case studies.

DURATION: 04/2010 - 04/2013

OBJECTIVE

ESOLI built awareness about intelligent street lighting and accelerated the use of these technologies across Europe. The consortium implemented actions to increase energy efficiency and reduce CO₂ emissions in outdoor lighting, as well as established innovative financing schemes. The project shared its knowledge within the EU through a transnational network of key actors and worked to improve market conditions for energy service companies.

Building on the previous E-Street initiative, ESOLi was able to increase the number of intelligent light points within the EU by involving new end-users and providing them with appropriate information. Training was offered to street lighting operators and other relevant target groups. ESOLI also worked on standardisation issues and developed guidelines for new installations and contracts in more easily implemented intelligent systems in outdoor lighting.

RESULTS

- Increased rate of implementation of best available technology and accelerated innovation in outdoor lighting by promoting new installations contributing to more adaptive light points.
- Knowledge transferred from countries experienced in adaptive road and street lighting to countries with very few adaptive outdoor light points.
- Provided relevant information geared towards end-users, decision makers and consultants.
- Established a comprehensive network of key actors at national and European levels to benefit from broader dissemination channels and achieve a significant market transformation.
- Improved market conditions for energy service companies (ESCOs), particularly for ESCOs active in new member states via the exchange of best practices and by assisting municipalities in preparing tenders for street lighting.

BUDGET: EUR 2 112 996 (EU CONTRIBUTION 75%)

17. Top-quality energy efficient lighting for the domestic sector

PREMIUMLIGHT



DURATION: 05/2012 - 10/2014

OBJECTIVE

A smooth and effective transition from old, inefficient lighting technology to highly efficient lighting requires consumer-orientated support measures and information services. PremiumLight facilitated the transition to efficient high-quality lighting solutions in households while also supporting new EU legal instruments.

The project provided fact-based consumer information on energy efficient lighting technologies, making the case for higher efficiency lighting more evident. By doing that, the project made high-quality, energy efficient lighting products easily visible to buyers, prompting an increased market supply and lower prices of LED lamps.

PremiumLight motivated consumers to buy and use high-quality, energy efficient lighting products by providing them with knowledge and tools.

RESULTS

- Comprehensive information and demonstration of high quality energy efficient lighting at the point of sale to at least 24 retail chains or groups.
- Involved at least 120 actors from public authorities, consumer associations, energy utilities, etc. in dissemination activities.
- Cooperated with at least 36 media partners to support comprehensive information on development and services for energy efficient lighting.
- → Published at least 240 articles related to the project.
- Motivated 10 million consumers to purchase high-quality, energy efficient lighting products.
- Implemented an international database on high-quality, energy efficient CFL and LED products (60 lamps tested within the project).

BUDGET: EUR 1598700 (EU CONTRIBUTION 75%)



CONTACT

Österreichische Energieagentur, Austria Website: http://www.energyagency.at Name: Bernd Schaeppi E-Mail: bernd.schaeppi@energyagency.at Tel: +43 1 586 15 24 Website: http://www.premiumlight.eu/

- SEVEN, Czech Republic
- Berlin Energy Agency, Germany
- Politecnico Milano, Italia
- Energy Saving Trust, United Kingdom
- MOTIVA, Finland
- TEM, Sweden
- University of Coimbra Institute for Systems and Robotics, Portugal
- University of Toulouse LAPLACE, France
- Energy Piano, Denmark
- Ecoserveis, Spain
- Ekodoma, Latvia



18. Intelligent Road and Street Lighting in Europe

F-STRFFT



CONTACT

Hafslund Nett AS, Norway Contact Point: Bjorn Sandtveit E-Mail: bjorn.sandtveit@hafslund.no Tel: +47 99 21 30 36

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 30/06/2008 Contract Number: EISAV/EIE/05/157/2005 Website: http://www.e-streetlight.com

- Hafslund Nett AS, Norway
- Black Sea Regional Energy Centre, Bulgaria ELTODO EG, Czech Republic
- Philips Lys A/S, Denmark
- Suomalainen Insinööritoimisto Oy, Finland
- Investitionsbank Schleswig-Holstein, Germany
- Echelon BV, Netherlands
- Oslo municipality, Norway
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Agência Municipal de Energia de Almada, Portugal
- Javna Razsvetljava d.d., Slovenia
- City of Göteborg, Traffic and Public Authority, Sweden





DURATION: 01/2006 - /6/2008

OBJECTIVE

Intelligent Road and Street Lighting in Europe increased awareness of intelligent street lighting and accelerated the use of these technologies across Europe.

Through the project, partners achieved energy savings in different settings and helped coordinate procurement initiatives.

Project partners also worked to speed up the development of legislation and created a list of customer requirements.

RESULTS

More than 20,000 intelligent streetlights (adaptive luminaires) were directly installed by partners, and another 65,000 units identified.

- Under the International Commission on Illumination, CIE, a new standard was developed to take into account adaptive (intelligent) street lighting.
- An administrative tool for handling adaptive lighting was put into operation in Oslo.
- The energy performance contract (EPC) model was modified for street lighting purposes.
- Project partners participated in seminars and workshops and presented papers at several international events.

BUDGET: EUR 1083846







19. Residential Monitoring to Decrease Energy Use and Carbon Emissions in Europe

REMODECE

CONTACT

ISR-University of Coimbra, Portugal Contact Point: Anibal De Almeida E-Mail: adealmeida@isr.uc.pt Tel: +351 239 796 218

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 30/06/2008 Contract Number: EISAV/EIE/05/124/2005 Website: http://www.isr.uc.pt/~remodece

PARTNERS AND COORDINATOR

- ISR-University of Coimbra, Portugal
- e-ster bvba, Belgium
- Center for Energy Efficiency, Bulgaria
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Energy piano, Denmark
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Electricité de France SA, France
- Enertech
- ARCE, Romania
- The Fraunhofer Institute for Systems and Innovation Research, Germany
- SINTEF Energy Research, Norway
- · CRES, Greece
- ADENE's, Portugal
- The Central European University, Hungary
- The Energetics Department of Politecnico di Milano, Italy



Despite the large increase in the use of electricity in the residential sector and the consequent impact on CO_2 emissions, there is little reliable knowledge at the European level on how electricity is used. According to experts, data on energy supply and end-use are a prerequisite for developing policies and initiating a change towards increased sustainability.

DURATION: 01/2006 - 06/2008

OBJECTIVE

REMODECE asked "How much electricity can be saved if the most efficient appliances are used and standby consumption reduced?" When looking for an answer, they realized that despite the large increase in the use of electricity in the residential sector and the consequent impact on CO_2 emissions, there was little reliable knowledge on how this electricity was being used.

REMODECE changed this through monitoring and surveys. A large-scale monitoring campaign and consumer survey were carried out in 12 countries. In addition, 100 households were audited and 500 detailed questionnaires were collected in each country.

The project bridged the existing information gap and contributed to a better understanding of current and impending electricity use by European households from different types of equipment, consumer lifestyles, and comfort levels. The collected data is now available in the online European Residential Electricity Consumption Database.

RESULTS

- Updated European database on residential consumption, including Central and Eastern European countries.
- Developed methodologies for combining the use of selective monitoring with wider-scale surveying.
- Created a software tool for evaluating energy performance in households.
- Made policy recommendations for different types of equipment.

BUDGET: EUR 1468057 (EU CONTRIBUTION 50%)

20. Implementing EU Appliance Policy in Central and Eastern Europe

CEECAP

CEECAP was a project supporting market surveillance and energy label awareness in the region of Central and Eastern Europe. The tool previously did not receive sufficient attention among authorities and stakeholders.

DURATION: 01/2006 - 06/2008

OBJECTIVE

CEECAP created conditions for labelling appliances and putting EU energy efficiency policies into action in Central and Eastern Europe. The project gave energy efficiency a much needed kick-start by increasing expertise on energy label verification, enforcement and market introduction, and by strengthening relationships between stakeholders.

CEECAP targeted national experts, decision makers and surveillance authorities, along with other stakeholders like retailers, manufacturers and consumers.

RESULTS

- Prepared training manuals for government officials, retailers and manufacturers with guidelines on labelling domestic appliances.
- Produced a summary report on Member State implementation of the National Verification and Enforcement Plan and the National Market Introduction Plan.
- Organised national contact groups, workshops and individual consultations.
- In the end, it concluded that energy labelling does not necessarily depend on the geographic location of the Member State, as the presence of labels in shops and the degree of state control are not necessarily lower in new Member States. On the other hand, in many of the participating countries, there was a very low level of official appliance tests conducted.

BUDGET: EUR 649788 (EU CONTRIBUTION 50%)

CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 30/06/2008 Contract Number: EISAV/EIE/05/195/2005

- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Österreichische Energieagentur, Austria
- Center for Energy Efficiency, Bulgaria
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Lithuanian Energy Institute, Lithuania
- Klinckenberg Consultants, Netherlands
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Romanian Agency for Energy Conservation, Romania
- Slovenská Energetická Agentúra, Slovakia



21. Common appliance policy – All for one, One for all – Energy Labels COME ON LABELS



CONTACT

SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic **Contact Point:** Name: Mr. Juraj Krivošík **E-Mail**: juraj.krivosik@svn.cz **Tel:** +420 224 252 115

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/12/2010 to 31/05/2013 Contract Number: IEE/09/628/SI2.558219 Website: http://www.come-on-labels.eu

PARTNERS AND COORDINATOR

- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Österreichische Energieagentur, Austria
- Elma Kurtalj Ltd., Croatia
- Brussels Energy Agency, Belgium
- ESCAN, S.A.,Spain
- QUERCUS Associação Nacional de Conservação da Natureza, Portugal
- The polish national energy conservation agency, Poland
- Projects in Motion, Malta
- Ekodoma, Ltd, Latvia
- ENEA Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, Italy
- Department of Environment & Transport Center for Renewable Energy Sources and Saving (CRES), Greece
- Öko-Institut e.V., Germany
- Severn Wye Energy Agency, United Kingdom



The Come On Labels project has undertaken the full chain of activities needed for the proper implementation of energy labelling legislation in 13 EU countries – from working with the authorities, to collecting information on label display in shops, to educating consumers.

DURATION: 12/2010 - 05/2013

OBJECTIVE

The Come On Labels project collected, summarised and shared the best European experiences related to the energy labelling of household appliances. It also looked to define and apply the most effective supporting actions for the proper implementation of the new labelling scheme.

The project elaborated on and explained new legislative summaries for retailers, suppliers and authorities. It also collected and circulated product compliance testing, including best practices on improving the level of market surveillance. It backed its recommendations with findings gathered during visits to more than 900 shops where they monitored the presence of energy labels.

Furthermore, Come On Labels organised consumer activities, resulting in more than 580,000 pieces of printed material and more than 115 articles on new energy labels. That calculated to more than three million readers and viewers.

RESULTS

- Detailed review of new European legislation on product labelling, starting with the Directive 201/30/EU and including legislation concerning individual product groups.
- Provided an overview of how to properly display labels via three rounds of shop visits in 13 EU countries.
- Collected publicly available information about product compliance testing, highlighting certain areas where international cooperation, knowledge sharing and common methodologies could help authorities and other stakeholders to increase the level of surveillance and thus increase the level of compliance.
- Organized numerous dissemination activities, increasing consumer awareness about new energy labels.
- Provided information on product replacement schemes and their impact on product selection, making recommendations for future improvements in similar schemes.

BUDGET: EUR 1661845 (EU CONTRIBUTION 75%)

22. Yearly Appliance Energy Cost Indication

YAECI

Consumers are increasingly interested in the actual running costs of appliances. The YAECI Project helps define and deliver this information to them, by working closely with retailers, and by ensuring a transparent methodology.

DURATION: 03/2012 - 03/2015

OBJECTIVE

Although the energy label provides consumers with information on the energy efficiency and consumption of the product, it lacks information on an important purchase criterion: the (yearly) energy costs.

By working with retailers and ensuring a transparent methodology, the YAECI project provides consumers with information on the running costs of appliances.

YAECI provides customers with information at the point of sale, specifically, on the yearly energy cost of a product (Energy Indicator) that comes with an energy label (i.e., cold appliances, washing machines, dishwashers, dryers, air-conditioners and televisions). This Energy Indicator shows the customer that even if a product is initially somewhat more expensive, in fact, it usually works out to be cheaper in the long run, thanks to lower annual running costs.

RESULTS

- Indication of yearly energy costs at point of sale and in web shops by a number of retailers/web shops, which can serve as "YAECI frontrunners" in participating countries.
- Increased market share of energy efficient products at participating retailers, resulting in 24.6 toe/year primary energy savings.
- Establishment of a YAECI follow-up business plan, in cooperation with a leading stakeholder and other relevant (national) stakeholders.

BUDGET: EUR 1488954 (EU CONTRIBUTION 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 20/03/2012 to 19/03/2015 Contract Number: IEE/11/843/SI2.615934 Website: http://www.appliance-energy-costs.eu

- NL Agency, Netherlands
- Oeko-Institut e.V. Institute for Applied Ecology, Germany
- Uneto-VNI, Netherlands
- ESCAN, S.A., Spain
- Building and Civil Engineering Institute ZRMK, Slovenia
 - Austrian Energy Agency, Austria
- Energy Institute «Hrbovje Pozar», Croatia
- BIO Intelligence Service, France
- Projects in Motion, Malta
- SEVEn, The Energy Efficiency Center, Czech Republic,
- ENA, Portugal
- ICEMENERG, Romania



23. Standby and Off-Mode Energy Losses In New Appliances Measured in Shops

SELINA

CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/10/2008 to 30/09/2010 Contract Number: IEE/07/563/SI2.499206

PARTNERS AND COORDINATOR

- ISR-University of Coimbra, Portugal
- e-ster bvba, Belgium
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- IT Energy ApS, Denmark
- Association pour la Recherche et le Développement des Méthodes et Processus Industriels, France
- Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V., Germany
- Centre for Renewable Energy Sources, Greece
- Politecnico di Milano Dipartimento di Energetica, Italy
 Ekodoma, Latvia
- Romanian Agency for Energy Conservation, Romania
- Intertek Testing & Certification Ltd, United Kingdom
- Technische Universitat Graz, Austria



The SELINA project carried out a large-scale monitoring campaign in shops in order to characterize the low-power modes of new appliances being sold in the EU market. More than 6300 pieces of equipment were measured and are available at the SELINA online database (www.selina-database.eu). Effective market transformation policies and initiatives were identified in Europe and in non-EU countries, and policy recommendations to EU were identified.

DURATION: 10/2008 - 09/2010

OBJECTIVE

The SELINA project conducted a large-scale, in store monitoring campaign to characterise the low-power modes of new appliances being sold. Through the project, more than 6,300 appliances were measured, with results being shared via the SELINA online database (www.selina-database.eu).

By developing an appliance-specifc measuring methodology, SELINA characterised the European market in terms of standby and off consumption in new electrical and electronic household and office equipment. Having these standby measurements on a common set of products allows national and international comparisons of similar products across countries and regions – heightening the awareness of stakeholders on the enormity of standby power and providing a focal point for highlighting regional differences.

RESULTS

- Measured about 6318 appliances. 18.5% of appliances measured presented input power values higher than the 2010 EC 1275/2008 regulation threshold in off-mode. For standby, this value reaches 31%. For the 2013 threshold, the values increase to 41.5% and 66.4%.
- Developed a user-friendly Standby Calculator Tool capable of calculating consumed energy, annual cost and equivalent CO₂ emissions.
- Collected 390 questionnaires, showing that despite retailer's awareness of the product's energy consumption and energy labels, other types of arguments like the appliance price or functionalities are more frequently used when selling a product.
- Produced a Consumer Guideline brochure that was translated into all partners' national languages.
- Identified effective market transformation policies and initiatives for both European and non-European countries.
- Made policy recommendations in support of a standby consumption warning label on products.

BUDGET: EUR 1150417 (EU CONTRIBUTION 75%)

24. Appliance Testing for Washing Machines Energy Label and Ecodesign Evaluation

ATLETE, ATLETE II

Atlete projects are designed to demonstrate that market surveillance and testing can be done in a systematic, effective and cost-efficient way, helping to transform the market to ensure the highest benefit to consumers, manufacturers and the environment.

DURATION: 05/2012 - 10/2014

OBJECTIVE

ATLETE demonstrated that market surveillance and testing can be done in a systematic, effective and cost-efficient way – transforming the market and ensuring the highest benefit to consumers, manufacturers and the environment.

As a sequel, ATLETE II checked pan-European compliance of washing machines with the energy labelling and ecodesign requirements. It did this by using new measurement methods and improving the capability of testing laboratories.

In addition, the project supported cooperation among national authorities for effective market control.

RESULTS

- Identified examples of effective enforcement of existing labelling/ ecodesign legislation and national market surveillance.
- Identified, investigated and took action on cases on noncompliance.
- Analysed feasibility and affordability of verification compliance testing for energy labelling and ecodesign requirements.
- Shared an effective procedure for verifying the manufacturers' labelling/ecodesign declaration, including a methodology for selecting laboratories and appliance models.
- Provided the European Commission and Member States with the results of pan-European testing on a large number of washing machines.

BUDGET: EUR 1012058 (EU CONTRIBUTION 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/05/2012 to 31/10/2014 Contract Number: IEE/11/022/SI2.615922 Website: http://www.atlete.eu/2/

- Institute for Studies of the Integration of Systems, Italy
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Rheinische Friedrich-Wilhelms-Universität Bonn, Germany
- European Council for an Energy Efficient Economy, Sweden
- Swedish Energy Agency, Sweden
- European Committee of Domestic Equipment Manufacturers, Belgium
- International Consumer Research & Testing, United Kingdom
- The Swedish Energy Agency, Sweden
- The Austrian Energy Agency, Austria
- ECOS, France
- SEVEn, The Energy Efficiency Center, Czech Republic
- ENEA: Italian National Agency for New Technologies,
- Energy and Sustainable Economic Development, Italy



25. Compliance of TVs and monitors with the energy label and ecodesign requirements

COMPLIANTV



CONTACT

BIO Intelligence Services, France Contact Point: Shailendra Mugdal E-Mail: shmudgal@deloitte.fr Tel: +33 155616143

IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/05/2012 to 31/10/2014 Contract Number: IEE/11/022/SI2.615922

PARTNERS AND COORDINATOR

- BIO IS, France
- Austrian Energy Agency (AEA), Austria
- DigitalEurope, Belgium
- ECOS European Environmental Citizens Organisation for Standardisation, Belgium
- SEVEn, The Energy Efficiency Center, Czech Republic
- Technische Universität Berlin, Germany
- ipi Institute f
 ür Produkt-Markt-Forschung GmbH, Germany
- VDE Prüf- und Zertifizierungsinstitut GmbH, Germany
- Re/genT, Netherlands
- EST Energy Saving Trust, United Kingdom



Market surveillance is a cornerstone to achieve the objectives targeted by the legislative framework, especially for recent regulations. ComplianTV supporting authorities, as well as other stakeholders (testing laboratories, industry), in this essential activity.

DURATION: 04/2013 - 09/2015

OBJECTIVE

ComplianTV supports authorities and other stakeholders in the essential activity of market surveillance.

The project aims to provide a full-fledged, detailed guide for Member State market surveillance authorities who are facing new legislative and market challenges for televisions. This includes analysing the implication of the new energy labelling and ecodesign regulation provisions pertaining to surveillance activities.

To gather the required information, ad-hoc surveys of Member State authorities and retailer associations are being conducted and the compliance of TVs within the framework of the energy labelling/ ecodesign regulations is being assessed.

As a result, ComplianTV will improve the know-how and testing capability of laboratories facing the new, complex measurement methods applicable to TVs.

RESULTS

- Developing a guidance methodology and testing database of at least 90 different TV models.
- ----- Promoting enthusiasm for manufacturing energy efficient models.
- ✓ Improving rate of compliance of future display devices.
- Building a capacity of laboratory testing.
- Increasing consumer confidence and understanding of energy label and ecodesign regulations.

BUDGET: EUR 1294915 (EU CONTRIBUTION 75%)

26. European Eco-design Compliance Project

ECOPLIANT

Through this project, Ecopliant aims to strengthen market surveillance across Europe by developing a range of best practice guidance and training tools for all market surveillance authorities involved in the control and enforcement of products covered by Ecodesign Regulations.

DURATION : 04/2012 - 04/2015

OBJECTIVE

ECOPLIANT aims to strengthen market surveillance across Europe by developing a range of best practice guidance and training tools for all Market Surveillance Authorities (MSAs) involved in the control and enforcement of products covered by European ecodesign regulations.

ECOPLIANT is delivering the intended economic and environmental benefits of the EcoDesign Directive by strengthening market surveillance, increasing compliance and enforcing the relevant implementing measures. It is achieving this by establishing systems capable of coordinating the monitoring, verification and enforcement of ecodesign requirements across the European Single Market, and by increasing knowledge sharing amongst MSAs.

As a result, the project is enhancing the functionality of the European Single Market by ensuring that ecodesign requirements are consistently enforced across Member States, thus protecting compliant businesses by eliminating unfair competition from non-compliant goods.

RESULTS

- Member State adoption of best practices for conducting market surveillance.
- Database with compliance testing results to be used across all MSAs.
- Greater compliance due to increased market surveillance of products in the European Economic Area.
- Increased awareness of market surveillance by industry and consumers.

BUDGET: EUR 2369856 (EU CONTRIBUTION: 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 21/04/2012 to 20/04/2015 Contract Number: IEE/11/030/SI2.615923 Website: http://www.ecopliant.eu

- Department of Environment, Food and Rural Affairs, United Kingdom
- Swedish Energy Agency, Sweden
- Ente per le Nuove Tecnologie l'Energia e l'Ambiente, Italy
- Department of Communication, Energy & Natural Resources, Ireland
- Danish Energy Agency, Denmark
- Foundation for the Promotion of Industrial Innovation, Spain
- National Measurement Office, United Kingdom
- Dutch Ministry of Environment in VROM Inspectorate, The Netherlands
- Hungarian Trade Licensing Office, Hungary
- Safety and Chemicals Agency, Finland
- Federal Institute for Materials Research and Testing, Germany



27. Promotion of energy efficient appliances

PROMOTION 3E



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/10/2008 to 30/09/2011 Contract Number: IEE/07/803/SI2.499429 Website: http://www.promotion3e.ips.pt

PARTNERS AND COORDINATOR

- Escola Superior de Tecnologia de Setúbal, Portugal
- Agence Locale de l'Energie de l'Agglomeration Lyonnaise, France
- Technologie- und Gründerzentrum Bautzen GmbH, Germany
- Chambers Group for the Development of Greek Isles, Greece
- Technical University of Crete/Environmental Engineering
 Department, Greece
- Agenzia per l'Energia e l'Ambiente della provincia di Teramo, Italy
- Narodowa Agencja Poszanowania Energii S.A., Poland
- Agência de Energia e Ambiente da Arrábida, Portugal
 Agência Regional de Energia e Ambiente do Centro, Portugal
- APEA Energy Agency of the province of Ávila, Spain
- FS Social Factor Portuga
- NIEA Northern Ireland Energy Aagency Bryson Charitable Group, Ireland



Final results from promotion3e: in percentage relative to the initial market share, Class A++ increased 304% and Class A+ increased 177% (refrigerators, freezers and their combinations).

DURATION: 10/2008 - 09/2011

OBJECTIVE

Promotion 3E reduced household energy consumption by providing consumers with quality information on the benefits of choosing energy efficient electronic equipment and products. It accomplished this by focusing on training appliance sales personnel as well as informing customers on how to purchase energy efficient appliances.

RESULTS

- Studied consumer decision making process in order to customize training materials and training needs of sales personnel.
- Enrolled 580 stores and retail chains.
- Organised training sessions among sellers, providing complete information on the benefits and advantages of acquiring efficient appliances and providing sound arguments for promoting energy efficient appliances during the sales process.
- Trained 1,033 sellers of which 918 successfully fulfilled the requirements.
- Developed e-learning platforms in seven languages, allowing for a significant increase in trained sellers.
- Produced consumer-orientated promotional materials in eight languages, reaching more than one million consumers.

BUDGET: EUR 1178168 (EU CONTRIBUTION: 75%)

(4) Industrial and Commercial Products



28. Technology Procurement for Very Energy Efficient Circulation Pumps

ENERGY+ PUMPS



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 31/12/2008 Contract Number: EISAV/EIE/05/123/2005

PARTNERS AND COORDINATOR

- Wuppertal Institut für Klima, Umwelt und Energie GmbH, Germany
- Österreichische Energieagentur, Austria
- Vlaamse instelling voor technologisch onderzoek N.V., Belgium
- SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s., Czech Republic
- Motiva Oy, Finland
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Deutsche Energie-Agentur GmbH, Germany
- Centre for Renewable Energy Sources, Greece
- Politecnico di Milano Dipartimento di Energetica, Italy
- ESCAN, S.A., Spain



The new efficient technology for circulators, which was promoted by the Energy+ pumps project, has become compulsory by a new EU-directive for circulators.

DURATION: 01/2006 - 12/2008

OBJECTIVE

The Energy+ Pumps project reduced circulator annual electricity use by more than 50% by creating pumps with electronically commutated (EC) motors.

These pumps became mandatory under an EU directive for circulators, resulting in savings of about 1% of current EU electricity consumption, or 30 TWh/year, and reducing $\rm CO_2$ emissions by about 15 million tonnes per year.

To kick-start the manufacturing of the pumps, the project aggregated local authorities, installation contractors and housing companies. In addition, sizing software and sales training materials were developed.

Energy+ Pumps also held a competition for both energy efficient products and marketing campaigns, with information on the Energy+ Pumps being disseminated via the web newsletters, media and fairs.

RESULTS

- Three circulators from Grundfos and Wilo won Energy+ awards at the Mostra Convegno fair in Milan after achieving production using 50% less electricity than required for the 'class A' category under the Europump energy label.
- A condensing boiler by Solvis, which uses the circulator, also received an award, as did a promotion campaign by the city of Salzburg.
- Published lists of qualifying Energy+ circulator, with more than
 26 products of three different sizes on the latest list. These include
 49 institutional buyers and 27 supporters.
- Achieved a market share of more than 15% for Energy+ circulators.
- Contributed to the European Commission's proposal for EuP requirements for circulators.

BUDGET: EUR 1125636 (EU CONTRIBUTION: 50%)

29. Strategies for Development and Diffusion of Energy Efficient Distribution Transformers

SEEDT

Up to 12 Gwh/year can be saved by 2050 in EU by replacing electricity distribution transformers by more efficient ones at the end of their lifetime.

DURATION: 01/2006 - 06/2008

OBJECTIVE

By replacing electricity distribution transformers (DTs) with more efficient transformers near the end of their lifetime, Europe could achieve a potential annual electricity savings of 22 TWh or the equivalent of 9 million tonnes of CO_2 for utilities (for the industry and tertiary sectors this number is 5 TWh). This is equivalent to the output of the EU's three largest coal-fired electricity plants, or the consumption of 5.1 million homes.

To reach these levels of savings, the SEEDT project focused on promoting the use of energy efficient distribution transformers (DTs). Specifically, the project targeted manufacturers, utility companies, industries, and building managers, providing them with information on labelling, standards and available voluntary agreements.

RESULTS

- Organised round table discussions in six countries that were attended by policy makers, electricity utilities, energy producers and transformer manufacturers.
- Coordinated international workshops in Paris and Prague and published four biannual newsletters.
- Developed a web-based tool for calculating energy loss in distribution transformers and comparing different transformers, taking into account both financial and environmental parameters.
- Created three models for energy labelling of DTs as well as another for calculating the energy saving potential and possible CO₂ emission reductions under different policy scenarios.
- Suggested regulatory changes in EU countries, including the introduction of a mandatory minimum efficiency standard.
- Distributed technical guide providing advice to DT users on how to choose them.

BUDGET: EUR 637864 (EU CONTRIBUTION: 50%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 30/06/2008 Contract Number: EISAV/EIE/05/056/2005

- National Technical University of Athens, Greece
- AERE, France
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- Wuppertal Institut für Umwelt, Klima, Energie GmbH im Wissenschaftszentrum Nordrhein-Westfalen, Germany
- Federazione delle Associazioni scietifiche e techniche, Italy
- Aódzki ZakBad Energetyczny S.A., Poland
- AREVA T&D Spólka z ograniczona odpowiedzialnoscia, Poland
- Polish Copper Promotion Centre, Poland
- Endesa Distribucion Electrica, S.L., Spain



30. Raising the efficiency of new installed boilers

BOILEFF



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/02/2007 to 30/09/2009 Contract Number: EISAV/EIE/06/134/2006

PARTNERS AND COORDINATOR

- Österreichische Energieagentur, Austria
- Wuppertal Institut für Klima, Umwelt und Energie GmbH, Germany
- Regulatory Authority for Energy of the Hellenic Republic, Greece
- Innoterm Energetikai és Környezetvédelmi Fejlesztő Kft., Hungary
- Universitat Rovira i Virgili, Spain



BOILeff developed innovative strategies for the promotion of high-quality installations to maximise the efficiency of new installed heating systems.

DURATION: 02/2007 - 09/2009

OBJECTIVE

Through its test cases, the project demonstrated that boilers could achieve high levels of efficiency. However, in reality they were not performing well. Thus, BOILEFF developed and assessed two new market approaches for improving their efficiency.

The first approach involved a declaration in the contract between installers and consumers, providing a checklist of quality criteria for installation. The second approach, titled 'Guaranteed Performance Quality', required installers to measure and guarantee a high seasonal efficiency of the boiler.

RESULTS

- Seventy-seven audits were carried-out, demonstrating numerous shortcomings in boiler installations.
- Successfully developed, deployed and verified two new market approaches.
- Forty-four installers and 249 end consumers took part in the field testing exercise, with 29 boilers equipped with test equipment.
- Field tests achieved energy savings of 203 MWh/year and a 73 t/year CO₂ reduction.
- ↔ BOILEFF installations achieved higher seasonal efficiencies of between 7 and 17%.

BUDGET: EUR 429279 (EU CONTRIBUTION 50%)

31. Changing the heating market mechanisms: Boiler Information System on Efficiency

BISON



DURATION: 11/2007 - 04/2010

OBJECTIVE

The BISON project set up a web-based information system on central heating boilers that allows consumers, installers, architects and energy consultants to be better informed about a boilers' energy efficiency within a specific environment.

The project aimed to change market mechanisms while creating consumer demand for energy efficient boilers. As a result, the web tool guides consumers, installers and consultants through the process of finding the right boiler for their specific installation. The tool is available at www.boilerinfo.eu.

RESULTS

- The website provides advice on such scenarios as finding a suitable boiler for a new house, replacing an existing boiler and seeing all boilers in a stand-alone database.
- The boiler database contains more than 1,100 boilers with more than 200 parameters.
- The calculation tool is connected to the boiler database and the ECOdesign calculation model.

BUDGET: EUR 607 920 (EU CONTRIBUTION: 50%)

CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/11/2007 to 30/04/2010 Contract Number: EISAV/EIE/07/278/2007

- Dansk Gasteknisk Center a/s, Denmark
- National Technical University of Athens, Greece
- Centro de Apoio Tecnológico à Indústria
- Metalomecânica, Portugal
- REPSOL YPF, S.A, Spain



32. Energy-Efficient Elevators and Escalators

E4

CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 15/10/2007 to 14/04/2010 Contract Number: EISAV/EIE/07/111/2007

PARTNERS AND COORDINATOR

- ISR-University of Coimbra, Portugal
- European Lift Association AISBL, Belgium
- Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., Germany
- ENEA, Ente per le Nuove Tecnologie, L'energia e l'Ambiente, Italy
- Krajowa Agencja Poszanowania Energii S.A., Poland



Energy efficient lighting options and the use of electronic components with low standby power (e.g. controllers and inverter) were found to play a major role in energy reduction. Turning off non-essential equipment or putting them into a very low power "sleep" mode, whenever possible, produced even larger electricity savings. These savings translate into a reduction of carbon emissions of around 4.4 Mtons of CO_2eq and 5.2 Mtons of CO_2eq , respectively, considering the current electricity production mix in Europe.

DURATION: 10/2007 - 04/2010

OBJECTIVE

More than a third of all EU energy consumption occurs in the tertiary and residential sectors, primarily in buildings. In fact, energy consumption in buildings has grown with the rise of such comforts as elevators and escalators. This increase in consumption is one of the leading causes of CO_2 emission growth.

The E4 project targeted elevators and escalators, promoting the efficient use of electricity through the application of the best available technologies. For example, the project found that when in standby mode, these technologies can result in savings of more than 70%. Energy efficient lighting options and components with low standby power play a major part in this reduction, as well as turning off non-essential equipment or putting it in "sleep" mode when not in use.

RESULTS

- Created database for estimating the energy consumed by lifts and escalators, highlighting the relative importance of standby consumption.
- Conducted technological assessment aimed at the characterisation of existing technologies, as well as identifying emerging energy efficient solutions that can provide electricity savings both in standby and in running of lifts and escalators.
- The potential overall (running plus standby) savings are estimated to be of 11 TWh when the best available technologies are used, or up to 13 TWh if technologies that are being developed but not yet widely used in the lift industry are applied.
- As the estimated electricity consumption of escalators in Europe is relatively modest (900 GWh), a potential reduction of around 250 GWh (30%) is feasible if all the escalators are equipped with automatic speed controls and low power standby modes.

BUDGET: EUR 648 627 (EU CONTRIBUTION: 49%)

33. SEasonal PErformance factor and MOnitoring for heat pump systems in the building sector

SEPEMO-BUILD

Increased deployment of heat pumps is key to reaching and even outperforming EU targets on RES energy. The SEPEMO project provided a robust methodology for the calculation of RES energy from heat pumps, later adopted in the EU commission decision 2013:114.

DURATION: 06/2009 - 05/2012

OBJECTIVE

The SEPEMO-BUILD overcame a major market barrier to the wide application of heat pumps, namely the lack of robust data on the conditions "in real installations" influencing reliability and seasonal efficiency. Specifically, the project aimed to get a broader acceptance of heat pump systems and improve quality assurance in the building sector.

SEPEMO-BUILD focused on the deployment of all types of heat pumps (air, water and ground) in residential buildings. One key requirement to achieving awareness about real life performance is having a universal methodology for measuring a heat pump system's seasonal performance factors (SPFs) within the field. The project provided such a robust methodology that it was eventually adopted by the European Commission.

RESULTS

- Developed common methodology for field measurement of heat \sim pump systems and calculation and monitoring of SPF.
- Evaluated already running field measurements on heat pump systems, finding that although no standard methodology was used in earlier field monitoring, fragments were similar, making it easier to gain acceptance for setting up system boundaries.
- Fifty-two buildings were investigated for field monitoring and equipped with field monitoring equipment.
- Forty-seven results were published on the SEPEMO website.
- Improved and extended existing guidelines to include all types of heat pumps for installation of energy efficient and reliable heat pump systems, taking into account regional constraints and building standards.
- Evaluated existing methods for field measurement and calculation of heat pump systems SPF, making recommendations for new field measurement methods.

BUDGET: EUR 1545498 (EU CONTRIBUTION: 75%)



CONTACT

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IN BRIEF

Sector: Renewable energy (ALTENER) Heating and Cooling Duration: 01/06/2009 to 31/05/2012 Contract Number: IEE/08/776 Website: http://www.sepemo.eu

- SP Technical Research Institute of Sweden, Sweden
- Centre scientifique et technique du bâtiment, France GtV Service GmbH, Germany
- Centre for Renewable Energy Sources, Greece
- Electricity of France, France
- NL Agency, Netherlands
- AIT Austrian Institute of Technology GmbH, Austria
- FIZ Karlsruhe GmbH, Germany Association for Research and Development of Industrial Methods and Processes. France
- European Heat Pump Association EEIG, Belgium



34. Development of the market for energy efficient servers

E-SERVER



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2007 to 30/04/2009 Contract Number: EISAV/EIE/06/012/2006

PARTNERS AND COORDINATOR

- Österreichische Energieagentur, Austria
- Agence de l'Environnement et de la Maîtrise de l'Energie, France
- IBM Deutschland GmbH, Germany
- Sun Microsystems GmbH, Germany
- Universität Karlsruhe (TH), Germany
- Robert Harrison Associates LTD, United Kingdom





DURATION: 01/2007 - 04/2009

OBJECTIVE

Energy cost for the operation of servers was expected to exceed procurement costs of server hardware by 2015. Server hardware and infrastructure significantly contribute to the energy consumption and operating costs of IT equipment in both the private and public sectors. A comprehensive study on the energy saving potential shows that server hardware and infrastructure consume 1.5% of the total European electricity consumption. This is equivalent to 40 TWh/year.

Moderate measures supporting server energy efficiency can significantly reduce energy demand. More aggressive measures would lead to an annual energy savings of between 50% - 60% and a cost savings of EUR 7 billion. The E-SERVER project stimulated the market for energy efficient servers by demonstrating the energy saving potential and by removing demand-side market barriers.

RESULTS

- Contributed to the development of the first energy efficiency criteria for servers in the US/EU Energy Star programme, addressing volume servers up to two CPUs and focusing on power supply efficiency and energy consumption in idle mode.
- Conducted best practice case studies in small, medium size and large enterprises, confirming an average energy saving potential of about 60%.
- Depending on the initial situation, the specific applications addressed and the technology implemented, energy savings from 25% to more than 90% could be achieved.
- The case studies demonstrated that efficient technology can be effectively implemented without negatively affecting performance and safety.
- Developed guidelines for procurement and management of energy efficient servers, covering energy efficiency criteria, efficient technologies and the effective implementation of measures.

BUDGET: EUR 928349 (EU CONTRIBUTION: 50%)

35. Supporting the market for energy efficient central IT

PRIMEENERGYIT



DURATION: 05/2010 - 10/2012

OBJECTIVE

PrimeEnergyIT, with 10 partners in seven countries and coordinated by the Austrian Energy Agency, supported market development and demand for central IT equipment, focusing on the server, data storage, network and cooling equipment.

Central measures of the project included supporting the development of energy efficiency criteria; the development and dissemination of technology and procurement guidelines; the implementation of green public procurement; the dissemination of best practices and the training of IT managers and consultants.

The increase in use of IT services leads to growing energy consumption, but with efficient technology promotion available, it must be promoted to relevant target groups. PrimeEnergyIT worked to promote these technologies.

RESULTS

- Supported the development of energy efficiency criteria and metrics for central IT hardware and data centres at an international level by contributing to the relevant initiatives and programmes currently dealing with criteria development (Energy Star, The Green Grid, etc.).
- Developed guidelines on energy efficient equipment technology for servers, data storage, network equipment and cooling.
- Provided guidelines as both digital and printed brochures in seven languages.
- Organised education seminars for 500 IT and infrastructure managers and consultants, using a modular education concept (300 slides) that included all relevant technologies.
- Provided guidelines for procurement of energy efficient IT equipment to public services in the different countries.
- ----- Evaluated certification concepts for energy efficient data centres.

BUDGET: EUR 1202413 (EU CONTRIBUTION: 75%)



CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/05/2010 to 30/10/2012 Contract Number: IEE/09/816/SI2.558288 Website: http://www.efficient-datacenter.eu

- Berlin Energy Agency, Germany
- Berlin Institute of Technology (in co-operation with Fraunhofer IZM), Germany
- BIO Intelligence Service, France
- eERG Politecnico di Milano Energy Department, Italy
- GAIA Association of Industries for Electronic and Information Technology in the Basque Country, Spain
 - ICLEI European Secretariat GmbH, Germany
- INRIA French National Institute for Research in Computer Science and Control, France
- Institute of Systems and Robotics University of Coimbra, Portugal
- SEVEn, The Energy Efficiency Center, Czech Republic



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36. Buy Smart - Green Procurement for Smart Purchasing

BUY SMART



Berliner Energieagentur GmbH, Germany Contact Point: Ms Vanessa Hübner

Duration: 01/05/2009 to 31/10/2011 Contract Number: IEE/08/488/SI2.528388

PARTNERS AND COORDINATOR

- O.Ö. Energiesparverband, Austria SEVEn, Stredisko pro efektivni vyuzivani energie, o.p.s.,
- B.&S.U. Beratungs-und Service-Gesellschaft Umwelt

- Building and Civil Engineering Institute ZRMK, Slovenia



To promote the supply of eco-efficient products and services the Buy Smart project provided free consultation and information material on green procurement. The project addressed the main barriers hampering a broad implementation of green procurement.

DURATION: 05/2009 - 10/2011

OBJECTIVE

The Buy Smart project provided free consultation and information on green procurement in order to promote the supply of eco-efficient products and services. Using the established green procurement guidelines developed in the GreenLabelsPurchase project, Buy Smart promoted, implemented and further developed the procurement of energy efficient products.

Specifically, the project addressed the main barriers hampering wider implementation of green procurement and provided training, capacity building and policy recommendations.

RESULTS

- Launched website with information about green procurement \sim available in multiple languages.
- Established 15 collaborations with e-procurement platforms \sim and strategic partners like associations for municipalities and businesses and national steering committees.
- Performed 460 consultations, 168 in-house consultations and 70 training courses, resulting in 37 finished pilot projects with savings of 105 GWh/year and 2,500 GWh/year for the two unexpectedly large pilot projects preparing purchasing guidelines for Berlin and Donauwörth.
- Dissemination activities included 127 presentations about Buy Smart, 40 national newsletters sent out and 220 media coverings gathered.
- Organised a final conference during the EU Sustainable Energy Week in Brussels.
- Established a best practices database containing 141 (92 new ~~ cases) examples of green procurement.

BUDGET: EUR 876 502 (EU CONTRIBUTION: 75%)

37. Buy Smart+ Green Procurement in Europe

BUY SMART+

The central strategic objective of the Buy Smart+ project is to increase the share of energy efficient procurement in Europe. This will lead to a higher market impact and, therefore, support the production and the use of energy efficient goods and services.

DURATION: 06/2012 - 06/2015

OBJECTIVE

The Buy Smart+ project looks to increase the share of energy efficient procurement in Europe, leading to a higher market impact and supporting the production and use of energy efficient goods and services.

The main objectives of the project are to consolidate green procurement in seven member states and to transfer the knowledge to eight member states where green procurement is still at an early stage.

To accomplish this, Buy Smart+ aims to establish green procurement helpdesks in all 15 countries, delivering consultation, training, best practices and well-tested tools in the national language.

RESULTS

- Promoted the procurement of energy efficient products with a focus \sim on IT, building components, vehicles, lighting, household appliances and green power.
- Established green procurement helpdesks in 15 countries providing ~~ know-how on green procurement with guidelines and life cycle costing calculation tools through international websites.
- Provided green procurement support to more than 900 professional procurers via phone, e-mail or in person consultations and the organisation of more than 300 in-house consultations / training seminars to stakeholders and multipliers.
- Intensive communication with presentations (220), media coverings (204), newsletters (80), and a final conference.
- Thorough evaluation with questionnaires of green procurement ~~ applications, including a special evaluation report on the challenges of green procurement in smaller countries.

BUDGET: EUR 1 498 939 (EU CONTRIBUTION: 75%)



Berliner Energieagentur GmbH, Germany Contact Point: Gunnar Betz Tel: +49 30 293330-13

Duration: 01/06/2012 to 01/06/2015 Contract Number: IEE-11-900

- O.Ö. Energiesparverband, Austria Sofia Energy Center, Bulgaria North-West Croatia Regional Energy Agency, Croatia

- Kaunas Regional Energy Agency, Lithuania Energy Research and Modernising Institute, Hungary Building and Civil Engineering Institute ZRMK, Slovenia



38. GreenLabelsPurchase - making a greener procurement with energy labels

GREENLABELSPURCHASE

GreenLabelsPurchase

making a greener procurement with energy labels

CONTACT

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IN BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/01/2006 to 30/06/2008 Contract Number: EISAV/EIE/05/038/2005

PARTNERS AND COORDINATOR

- Berliner Energieagentur GmbH, Germany
- 0.0. Energiesparverband, Austri
- Center for Energy Efficiency, Bulg
- Efeko Ltd, Finland
- Motiva Oy, Finland
- B.&S.U. Beratungs- und Service Gesellschaft Umwelt mbH, Germany
- Budapest University of Technology and Economics, Hungary
- Center for Environmental Studies Foundation, Hungary
- Ente per le Nuove Tecnologie, l'Energia e l'Ambiente, Italy
- Ekodoma, Latvia
- Krajowa Agencja Poszanowania Energii S.A., Poland
- Building and Civil Engineering Institute ZRMK, Slovenia



In the framework of the European Project "GreenLabels-Purchase – making a greener procurement with energy labels," both public and private institutions have been addressed and consulted to realise the economic potentials of green procurement.

DURATION: 01/2006 - 06/2008

OBJECTIVE

The GreenLabelsPurchase project increased the use of energy labels in the procurement processes of public authorities, tertiary sector, industry and SMEs.

Its objective was to develop standardised tools to support "greener" procurement procedures as well as to identify and overcome the main barriers to their introduction. Target areas included IT products, household appliances, lights, vehicles, building components and green power.

Both international and national steering committees were set up with results reported using internet portals, press releases, articles, presentations, workshops and conferences.

RESULTS

- Made guidelines, performance sheets and calculation tools available to purchasers from the public and private sectors in nine participating countries.
- Compiled a best practices database with success stories from all over Europe.
- As a result of the project, public authorities and private companies are applying green procurement measures using GreenLabelsPurchase criteria. Pilot projects range from a small Graduate School in Riga, Latvia, which bought 14 computer monitors, to the German bank KfW, which switched the power supply at all its premises to 100% green power.
- Refined recommendations and purchasing criteria in collaboration with national steering committees, ensuring GreenLabelsPurchase criteria were implemented on a national level.
- Despite a reluctance to change proven procurement policies in public administrations and private companies, convinced several institutions of the need to adopt minimum standards on energy efficiency.

BUDGET: EUR 1001340 (EU CONTRIBUTION: 50%)

39. Early market creation of innovative energy efficient technologies through smarter engagement with the market in the pre-procurement phase

SMART-SPP

The SMART SPP guidance and tools are made for any public authority. I'd like to invite you to test them in your upcoming tendering for innovative solutions.

DURATION: 09/2008 - 08/2011

OBJECTIVE

SMART-SPP succeeded at bringing innovative, market-tested energy efficient environmental technologies into the pre-procurement process. This was achieved by encouraging early market engagement between public authority procurers and suppliers in the pre-procurement phase.

Five public authorities in the United Kingdom, Denmark, Spain and Portugal tested a common integrated approach on the procurement of innovative products. This approach included tools for managing the risks in preprocurement, assessing the financial benefits (Life Cycle Costing), and calculating and communicating the CO_2 savings. Technologies in the field of computers, vehicles, lighting, and renewable energy heating/cooling were explored for the pre-procurement activities.

In addition, awareness-raising seminars and study visits were organised for Hungarian and Czech public authorities. In order to widely disseminate the results, four regional events and one European final conference were held.

RESULTS

- Reviewed reports on early market engagement, life cycle costing, CO₂ assessment tools, risk management for pre-procurement, and needs assessment of both suppliers and procurers.
- Published guidance document in English, Spanish, Portuguese and Danish for public authorities on how to use the pre-procurement process and market engagement to purchase innovative, energy efficient new technologies.
- Published tender documents, demanding innovative, energy efficient technologies.
- Brought innovative, energy efficient environmental technologies onto the market through the pre-procurement process.
- Organised local, regional and European events promoting the case studies of SMART SPP.
- Developed pre-procurement approach, addressing key stakeholders and such multipliers as local and national governments, business and international associations.

BUDGET: EUR 1119971 (EU CONTRIBUTION: 75%)



CONTACT

ICLEI European Secretariat GmbH Germany Contact Point: Holger Robrecht E-Mail: sustainable-now@iclei.org Tel: +49 761 368920

N BRIEF

Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/09/2008 to 31/08/2011 Contract Number: IEE/07/754/SI2.499421 Website: http://www.smart-spp.eu/

- ICLEI European Secretariat GmbH, Germany
- Kolding Kommune, Denmark
- Bundesverband für Umweltberatung e.V., Germany
- Öko-Institut e.V. Institut f
 ür angewandte ökologie, Germany
- Agência Cascais Energia, Poland
- LNEG Laboratório Nacional de Energia e Geologia, Portugal
- Ajuntament de Barcelona, Spain
- Associació Ecoinstitut d'Ecologia Aplicada, Spair
 Eastern Shires Purchasing Organisation, United
- Kingaom
- Global to Local Ltd, United Kingdom
- London Borough of Bromley, United Kingdom



40. Promoting green public procurement (GPP) in support of the 2020 goals

GPP 2020

GPP | procurem for a low-economy

procurement for a low-carbon

Secretariat Germany Website: http://www.iclei-europe.org/ Contact Point: Philipp Tepper E-Mail: info@gpp2020.eu Tel: +49 761 368 9247

Spending Initiative Duration: 01/05/2013 to 30/04/2016 Contract Number: IEE/12/844/SI2.644760

PARTNERS AND COORDINATOR

- Ministry of Infrastructure and the Environment, Netherlands
- Catalan Government Ministry of Territory and
- The Swedish Environmental Management Council,
- The Federal Procurement Agency, Austria The Competence Centre for Sustainable Procurement,

Green public procurement (GPP) has the potential to achieve massive CO₂ emission reductions. GPP 2020 shows how this is done in practice, showcasing over 100 tender models and establishing permanent GPP support structures in seven European regions.

DURATION: 05/2013 - 04/2016

OBJECTIVE

GPP 2020 is building capacity among public authorities for implementing green public procurement (GPP) for energy related products, services and work procurement. The project is also building capacity for training providers, enabling the integration of GPP into regular procurement training programmes.

The project will achieve CO₂ reductions by supporting the implementation of GPP tenders, promoting knowledge transfer of GPP approaches, innovative technologies and services between purchasing bodies and GPP support bodies across Europe.

As a result of its activities, GPP 2020 hopes to enhance permanent GPP support structures in the target countries.

RESULTS

- Sixty-four GPP tenders for energy related products and services ~~ carried out by project partners (six per partner), leading to estimated emissions reduction of 558,738 t CO₂ equivalent during the project.
- Forty-eight GPP tenders carried out by associate partners and other public authorities in the participating countries, leading to estimated emissions reduction of 419,053 t CO_2 equivalent during the project.
- Thirteen train-the-trainer seminars, resulting in 130 participants able to provide GPP training for procurers.
- Thirty-six training seminars for procurers, resulting in 540 participants better able to implement GPP within their own procurement actions.
- Permanent GPP support functions to assist public authorities in implementation during and after the project.

BUDGET: EUR 1873176

41. Public Procurement boosts Energy Efficiency

PRO-FF



DURATION: 11/2007 - 10/2010

OBJECTIVE

Pro-EE improved energy efficiency through sustainable public procurement. The project brought producers and consumers together, implementing energy efficient Green Public Procurement (GPP) procedures in local administrations and organised training for municipalities' procurement staff.

At the same time, five pilot cities set up integrated energy efficiency action plans, which included the involvement of stakeholders and awarenessraising campaigns for citizens.

RESULTS

- Established technical working groups with representatives of ~~ industries/suppliers, networks or cities, local procurement networks in all countries and energy efficiency criteria for innovative products and implementation of tenders on innovative products (e.g. e-cars, LED).
- Produced multilingual manual on energy efficient public procurement (in 6 languages).
- Created a starter package and tools, delivering "Climate scans", internal action plans, energy action plans and information campaigns for stakeholders in pilot cities.
- Delivered training programmes for purchasers in local authorities on sustainable public procurement.
- Published evaluation paper for the training programme that \sim included recommendations and informed public purchasers on the results at national level.
- Organised final conference with 200 participants, most of who were purchasers.

BUDGET: EUR 1 295 749 (EU CONTRIBUTION: 50%)



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Sector: Energy efficiency (SAVE) Equipment and products Duration: 01/11/2007 to 30/10/2010

- und Frauen Energiereferat, Germany Stadt Mainz, Umweltamt, Germany Centre for Renewable Energy Sources, Greece Municipality of Amaroussion Development Company,

- Agência DNA Cascais Cascais um Concelho Empreendedor, Portugal

- Associació «EcoInstitut» d'Ecologia Aplicada, Spain Ayuntamiento de Donostia San Sebastián, Spain Ayuntamiento de Murcia, Spain
- The European Committee of Environmental Technology



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