



Project Fact Sheet

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Energy Services: Reducing the Energy Consumption of Residents by Behavioural Changes (BewareE)

Programme area:	SAVE, energy services for housing organisations
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Website:	www.izt.de/bewaree
Objective:	identifying energy awareness services and promoting these services to housing organisations and service providers
Benefits:	reducing the energy consumption of tenants by behavioural changes
Keywords:	energy services, education, housing, behavioural change
Duration:	12/2007-05/2010
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Short description

In order to fight climate change all possibilities for lowering energy consumption must be exploited. Households are responsible for roughly 30 % of the total energy consumption in Europe, despite refurbishment works during the last decades. Tackling global warming is not only a technological problem – e.g. replacing conventional energy sources by renewable energy sources and promoting energy efficiency in traffic, industries and buildings – but also a problem of human behaviour. Human behaviour consists to a considerable degree of day-to-day routines which are not conducive to a sustainable use of energy.

The BewareE project, co-funded by the Executive Agency for Competitiveness and Innovation EACI, aimed at promoting the implementation of “energy awareness services” for changing energy consuming behaviour in European households. In collaboration with housing associations and other relevant stakeholders of the housing sector, the project consortium systematically gathered, evaluated and disseminated energy awareness services. We define energy awareness service as follows:

A household energy awareness service is any kind of action or tool to support residents in adopting sustainable energy consumption behaviours. These changes of behaviour relate to daily routines, purchasing and investment behaviours.

The project generated a database of energy awareness services to support housing organisations and companies, public and private energy service providers in developing own initiatives. Together with several partners, both private and public, best practice examples for energy services were promoted through workshops, presentations, publications, newsletters, brochures and manuals.

Results

- 139 energy awareness services from all over Europe were identified. These services are provided by housing companies, NGOs, utilities, consumer associations and similar organisations and address tenants and house owners.

- 27 country reports explained the national framework conditions of the identified energy awareness services.
- Based on a SWOT analysis 36 “best-practices” were selected to highlight the most promising awareness services. The best practices selection was realised according to five criteria: 1) resident acceptance; 2) potential market size [% of the whole market]; 3) energy reduction potential [% of total domestic energy use]; 4) initial costs [€ per service unit for enterprises, home owners or per household/year]; 5) development stage. Subsequently, services’ transferability to the specific national framework conditions in France, Germany, Spain and the Netherlands was assessed with regard to the following criteria: (i) Political regulatory framework conditions (PC), (ii) Market topics (MC) and (iii) Socio-cultural barriers (SC).
- The Northern European countries (Sweden, Finland, and Denmark) have developed the most comprehensive set of energy awareness services targeting large parts of society (see Scharp 2008a and Scharp 2008b). The Central European countries (Denmark, Britain, Germany, France, Belgium, Austria and the Netherlands) and Denmark display a broad spectrum of energy awareness services, but these are mostly regional or local projects that are not spread across the country (see Scharp 2008a and Scharp 2008b). Particularly in Southern and East-European countries technology-oriented energy services are prevailing, for example training measures for architects. Only a few services are targeting user behaviour. Even in those countries with a broad array of energy awareness services, these reach only a small share of populations.
- The BewareE partners developed a six-step approach for creating and implementing behavioural change services. This approach can be considered as an adapted form of the Service Engineering (SE) approach in the field of behavioural changes. It was tested in several in-house workshop with service providers.
- In each of the 4 countries 5 in-house workshops have been carried out, involving different service providers in the residential sector. The aim of these workshops was to develop a service (idea) fitting the specific background and individual needs of the organisations involved. “Implementation plans” were conceived, which describe an energy awareness services that might be provided by the service provider in question.
- Based on gathered knowledge the BewareE project partners developed national strategies to recommend important country-specific actions for speeding up the implementation of energy awareness services. For this purpose a comprehensive three steps approach was conceived: First, a core objective was defined and explained (e.g. “promoting energy savings through better information on energy costs”). Second, the main reasons for the strategy and the objective were explained in terms of scientific evidence, special needs, obstacles, success factors or innovative players. Finally, fields of actions as well as possible actions of the main stakeholders were outlined.
- The project outcomes are presented in a brochure and in a detailed 50 pages manual. Both publications are available in English, German, French, Dutch and Spanish and are ready for download at www.izt.de/bewaree.

Lessons learnt

Results show a huge variety of energy services provided in Europe. These range from campaigns, exhibitions and events to low-cost incentives, monitoring and empowerment services. Well-organized awareness-raising services can bring about energy savings from 5% – 10% and in some cases up to 20% a year. This goes along with household cost savings of up to 300 euros a year. In the following we present some of the most important findings:

- Only a few of the behaviour-related energy services draw on scientific insights to influencing consumer behaviour: Simple information services are most prevalent, even though this approach seems to be not very effective. Only some services can be categorised as feedback or empowerment measures which appear to bring about the highest energy savings and the most persistent behavioural changes. Consequently, all strategies for promoting energy services should be informed by scientific evidence on energy services’ effectiveness.
- Analysis revealed that collaboration between different actors is a key factor for successful service provision. A coordinated mix of tools, competencies and methods is necessary. Thus, successful services are often provided in collaboration by utilities, energy or environmental agencies, housing companies, Local or Regional Administrations, NGOs, technology companies, etc.
- Promoting energy awareness services and developing national strategies for a systematic and broad supply is a matter of urgency for all countries of the EU. However service providers face a number of significant barriers when designing and implementing services. One major obstacle to providing energy awareness services is getting sufficient funding. Energy awareness services are not considered core business for potential service providers like housing companies or utilities. Staff is needed to develop and implement effective services and, in some cases, expensive technical equipment. Furthermore, residents are mostly reluctant to pay for extra services. Therefore, new innovative forms of financing must be considered.