



Eco n'Home

Marches Energy Agency, United Kingdom

Summary

Eco n'Home is supported by the European Commission's Intelligent Energy Europe programme, contract no. EIE/05/029/SI2.419626.

The aim of the project is to combine expertise of energy agencies in seven member states in developing and implementing an innovative and highly replicable sustainable energy advice service for households, addressing energy in dwellings and travel. Eco n'Home goes beyond current practice by providing households with advice and recommendations specific to their circumstance and supporting them individually throughout delivery. A common methodology for investigation guarantees replication potential such as by energy agencies, utilities, local authorities and energy services companies, including new electronic tools for data collection and follow-up. The project is expected to achieve significant savings in energy ('Negawatts') and carbon emissions and aims to link these with markets for White Certificates and energy services, whilst offering a follow-on opportunity from Energy Performance Certificates.

End-user area

- New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- Legal initiatives (regulations, directives, etc)
- Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

Target Audience

- Citizens
- Households
- Property owners
- Schools and universities
- Decision makers
- Local and regional authorities
- Transport companies
- Utilities
- ESCOs
- Architects and engineers
- Financial institutions
- Other

Technical

- Energy efficiency
- Heating
- Cooling
- Appliances
- Lighting
- CHP
- District Heating
- Solar energy
- Biomass
- Wind
- Geothermal
- Hydro power
- Other

Context

Energy practitioners experience barriers to energy efficiency improvement in households as do the households themselves, preventing the delivery of energy and carbon savings and widespread socio-economic and environmental benefit. Common practice in Europe does not proceed beyond the initial provision of sustainable energy advice on dwellings and travel and instead relies on the households to implement recommendations, search for information and finance themselves. Evidence suggests that providing on-going, personal support to households could achieve greater uptake of RUE & RES technologies and sustained changes in user behaviour, with associated savings.

Objectives

Eco n'Home aims to develop and demonstrate a common, highly replicable and innovative methodology and tools for advising households on sustainable energy use in their dwelling and travel. Working with a sample of 1,000 households across seven member states the partners aim to demonstrate the benefits for energy and climate change associated with a personal, specific service that provides ongoing support beyond an initial consultation to the implementation of RUE and RES. Target savings are for a reduction in demand of 10 – 20%



per household, at least half of which is through travel-related actions. Replication potential is significant and relates well to the development of White Certificates and energy services markets, and a key objective is to achieve this at the local, regional, national and European level through new partnerships with energy actors.

Process

The project combines current and best practice in sustainable energy advice for households from across Europe to inform a new and innovative common methodology and the tools required for its implementation. Electronic tools for data collection, reporting and evaluation at the household and project levels have been developed, and suitable manual tools available for in-situ measurements identified. The flexibility of this common model enables local actors to select their own tools for performing household audits and follow-up, and makes easily possible replication by any actor and at any scale regardless of their local circumstance e.g. differences in billing arrangements, dwelling type and heating fuel.

Eco n'Home is working with a minimum sample of 1,000 households in seven member states to demonstrate this methodology and tools. Selection of households was primarily through existing networks and projects and local promotion with the aim of being representative. It is however possible that a proportion of those who responded were motivated more by environmental interest than need.

An individual audit of the dwelling and travel enables the production of a 'Home Energy Report' with specific recommendations, the calculation of the savings for each action, and the agreement of a 'Plan' for follow-up. The baseline energy and carbon situation is established from historic energy bills and meter readings. The energy adviser supports each household in implementing RUE and RES opportunities identified in the audit and at the end of the period evaluates changes in behaviour and quantifies results for emissions and energy demand reduction ('Negawatts'). All information is presented using graphics, text and statistics so that it is easy to understand and includes comparisons with the national baseline. The Negawatt concept involves the creation of supply as a result of energy efficiency rather than new generation capacity.

Partners will approach energy utilities for the purchase of the energy savings achieved within households to strengthen the market for White Certificates and complement statutory activities and targets, whilst also supporting growth in the energy services market. The process of follow-up offers a potential follow-on from the awarding of Energy Performance Certificates to both new and existing households.

Implementation began in January 2006 and will complete in December 2008. Results will become available after the end of the twelve month follow-up period and evaluation, and are expected by June 2008. Dissemination of the project and its results will take place via the website (www.econhome.eu), meetings and presentations, publication of articles and at the Eco n'Home conference later in 2008.

Financial resources and partners

The total budgeted cost of the Eco n'Home project is €1,177, 249. Local partners receive 50% of their costs (total €588,624) from the European Commission, the remainder sourced from local, regional or national organisations and partners or provided from own-funding.

Coordination of the project is the responsibility of Maîtrisez Votre Énergie – a local energy agency in Paris, France. E-ster (Belgium), Gefosat (France), FLAME (France), Ageneal (Portugal) and MEA (UK) each coordinate a work package within the project and in addition to EAA (Italy) and KliBA (Germany) deliver the methodology in their local area. ADEME (France) is tasked specifically with identifying networks for dissemination and replication.

Results

An aim of Eco n'Home is to reduce energy demand (kWh) and carbon emissions (kg CO₂) by an average 10 – 20% per project household, at least half of which must be in travel. The specific carbon target is one tonne for each.

Evaluation of individual households and the project as a whole will commence once the follow-up period is completed any are expected by June – July 2008. These results will include the measures installed and the



energy and carbon saved per partner and in total. Partner experiences suggest however that the success of Eco n'Home is unprecedented when compared to other sustainable energy initiatives.

In addition to carbon savings Eco n'Home will improve local air quality and by releasing expenditure, the socio-economic conditions of individual households to strengthen the local economy. New opportunities for sustainable energy technology manufacturers, suppliers and installers will result from increased demand.

Lessons learned and repeatability

Lessons to date include:

- Transferability – common tools cannot easily be transferred, unlike a flexible model and guidance
- Recruitment – can be resource intensive but improved through the use of multiple channels & tools
- Recruitment – the rate of uptake is enhanced by financial or other types of incentive
- Participation costs – not requested by most partners, however an affordable fee could help secure involvement for the duration of follow-up
- Energy baseline – may require informed judgements as household records are often incomplete
- Auditing – in detail is lengthy, but aided by the pre-audit preparation of materials by households
- Simplicity – in the explanation of manual tools and householder responsibilities e.g. in printed materials
- Local partnerships – e.g. for financial support on RUE and RES including low cost measures increases the opportunities for action by households
- Communication – of experiences to households provides inspiration, project promotion & partnerships
- Follow-up – events, articles, meter readings etc. support household engagement with objectives
- White Certificates – variations in market operation between states can make unviable the sale of project savings e.g. to energy utility companies

Contact for more information:

Project Web Site: www.econhome.eu

Organisation / Agency: Marches Energy Agency

Main contact: Katherine Shepherd

Address: 23 Swan Hill, Shrewsbury, Shropshire, SY1 1NN, United Kingdom

Tel: (0) 1743 246007

Fax: (0) 1743 246008

E-mail: katherine@mea.org.uk

Web Site: www.mea.org.uk

Other contacts: *Mr Erwan Olivo, Project Manager, Maîtrisez Votre Énergie, France, eolivo@agence-mve.fr*