

Project:

ENERsip - Energy Saving Information Platform for Generation and Consumption Networks

Project coordinator:

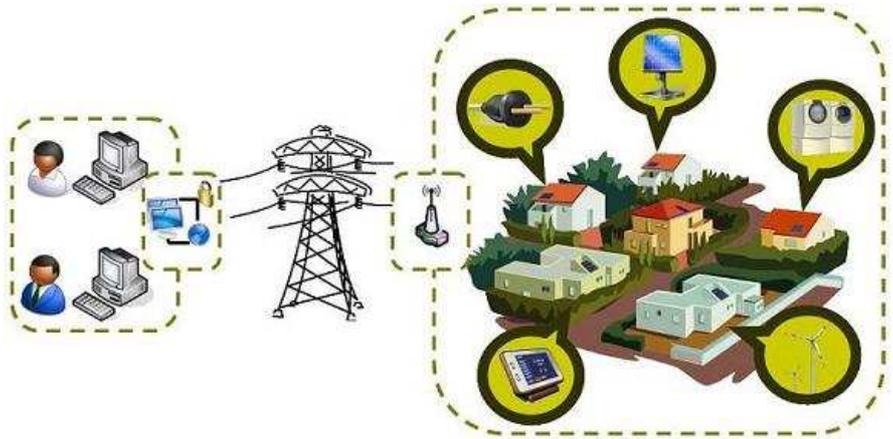


Partners:



About ENERsip

ENERsip will create an open service-oriented architectural platform to allow creating positive energy buildings and neighbourhoods by coordinating the consumers and the generators, while creating smart energy grids that will self feed with real-time information.



Goals and Objectives

The main goal of ENERsip project is to create an adaptive, customizable and service-oriented energy monitoring and control system by active and proactively coordinating energy, communications, control, computing and construction for near real-time generation and consumption matching in residential, commercial buildings and neighbourhoods.

Using advanced and novel communication protocols the information will be constantly exchanged through the ENERsip system, between energy grids, decision makers and users, helping consumers save energy using intuitive interfaces while maintaining the desired comfort levels.

ENERsip is targeted to allow the emergence of an open electricity market by using components from different suppliers, unifying their protocols and providing reliable data exchange services, thus helping reinforce European industrial and technological position in ICT-enabled energy efficiency technologies.

Besides, the development of an overall control architecture and the focus on open service oriented platform, implementation with SOA and Web Service technology provide a novel mechanism for energy efficiency in buildings towards end user demand, new local energy business models and utility company services.

The outcome of the adoption of ENERsip will reduce overall intense economic dependence on energy, obtaining a consumption reduction that can achieve 30%.

Impact

The emergence of an open electricity market including local and virtual operators.

ENERsip will create a set of tools and architectures, that will help design the basis of an open electricity market.. Given that ENERsip treats energy in a local way, in the sense of managing generation and consumption efficiently, its results can be used to establish the rules under which local and virtual operators may offer new services to end customers.

Progress through standardised control algorithms and communication protocols to enable systems built on components from different suppliers.

The basis of ENERsip is the integration of hardware from different suppliers, both consumer and generation infrastructure, through the use of open protocols, in order to feed control algorithms that will analyze and optimize the generation and use of energy.

Energy savings in residential and commercial buildings.

According to the theoretical analysis done at the proposal stage, ENERsip can reach a 30% in energy saving by mixing the intelligent use done by the users with the optimization in generation.

Reduced energy intensity of the economy and behavioural changes in the society at large.

Shall the previous impact be reached, the impact on the economic dependency will be lowered and the behaviour will change. Energy efficiency in local generation will allow reducing energy imports or excess in energy infrastructure, while the use of simple-to-use graphic interfaces for the end-user, with information on how energy is used, and how this use can be optimized, will help change the behaviour of the society.

Tested under real conditions

ENERsip includes a final test and validation phase covering all the issues of the project. The testing will be divided in two different parts: a deployment in a controlled environment focused, mainly, to the detection of unexpected errors and the feedback to the development team; and a deployment in an environment with real equipment installed in the non operating premises.

The execution of the tests will be done using real components of the usual consumption and generation installations, together with simulators that will allow changing behaviours and checking the different results and best configurations, focused to validate that the goals of the project have been achieved from an energy efficiency point of view.



Start date: 01.01.2010

Duration: 30 months

Total cost: 6.3M€ (funded by European Commission)

Objective: ICT-2009.6.3 b) ICT support to energy-positive buildings and neighbourhoods

Further information: www.enersip-project.eu

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