

Title: EU project ENCOURAGE reaches an important milestone

At the IEEE EUROCON conference, which took place July 1-4, 2013, the ENCOURAGE (Embedded iNtelligent COntrols for bUildings with Renewable generAtion and storaGE) project presented the final design and rationale of its interoperability architecture.

The ENCOURAGE project is developing smart grid technologies for the optimization of energy usage in residential and non-residential (campuses) buildings, and for integration with existing domotics solutions. ENCOURAGE approaches the problem of energy saving by the development of: a middleware for the interoperation of Home Area Networks (HANs), decision support systems for energy brokerage between houses, supervisory control strategies to coordinate smart grid subsystems (HVAC, lighting, renewables, thermal storage, etc), and virtual sub-metering technologies for the non-intrusive monitoring of energy consumption.

The ENCOURAGE architecture uses a set of plug-ins to mediate the interaction of the cloud-based energy scheduling applications with the HAN gateways of different vendors, and with other external services (weather forecast, energy markets, etc). The cloud hosts an event-based messaging bus, data-bases and the applications that compute energy-saving strategies and decisions, which are executed in the HANs by sending commands to the HAN gateways through the plug-ins.

In parallel, and as a follow-up of the project's general meeting in Barcelona on May 28-29, 2013, the consortium team also released the first prototypes of the main components of the architecture, reaching the important project milestone of "Integration readiness". These components will be integrated into the first of the ENCOURAGE demonstrators, to take place at the project's second year review, next October in Aalborg.

About ENCOURAGE

The ENCOURAGE project (www.encourage-project.eu) aims to develop embedded intelligence and integration technologies that will directly optimize energy use in buildings and enable active participation in the future smart grid environment.

The primary application domains targeted by the ENCOURAGE project are both non-residential buildings (e.g. campuses) and residential buildings (e.g. neighborhoods). The goal of the project is to achieve 20% of energy savings through the improved interoperability between various types of energy generation, consumption and storage devices, inter-building energy exchange and systematic performance monitoring.

The project is funded partly by the European Commission (Artemis Joint Undertaking) and partly by contributions from national funds. The project involves 11 partners from Spain, Portugal, Italy, Ireland and Denmark.

ENCOURAGE Facts:

Project Duration: 36 months

Start date: June 1, 2011

Total Costs: 6,37 million EUR

National Funding: 1,76 million EUR

Artemis JU contribution: 1,06 million EUR

Project Partners

Aalborg University (AAU), Denmark

Energi Nord, Denmark

Seluxit, Denmark

Advantic Sistemas Y Servicios, Spain

GNERA, Spain

Atos Origin, Spain

Esvall Projet SA , Spain

ISA, Portugal

ENEL Engineering and Innovation S.p.A., Italy

eZmonitoring, Ireland

CISTER/ISEP, Portugal

To follow the Encourage project development, please consult the project website (<http://www.encourage-project.eu>) for the latest news.