



Project Title

Demand Response Integration Technologies: unlocking the demand response potential in the distribution grid

Acronym

DRIVE

PROJECT CONTENT

State-of-the-art

It is widely recognised that increasing flexibility is key for the reliable operation of future power systems with very high penetration levels of Variable Renewable Energy Sources (VRES). The most significant source of flexibility in a future scenario with high penetration of VRES is Demand Response (DR). DR provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage in response to time-based rates or other forms of financial incentives. DR programs are being used by some electric system planners and operators, using mainly the flexibility provided by industrial buildings connected to HV grid, as a resource options for balancing supply and demand.

General objectives

DRIVE project aims to unlock the potential of residential and tertiary buildings in the distribution grid through a full-fledged platform bridging seamlessly the value-chain from planning and design of assets/buildings towards optimal operations in the next generation SmartGrids, paving the way to a fully deployed DR market in the distribution network.

DRIVE will develop a fully-integrated ICT infrastructure consisting of interoperable DR-enabling Energy Management solutions for residential and tertiary buildings and a platform for effective and secure management of flexibility at the level of the distribution grid. This platform will be validated at COMSA's head office.

Project tasks

- I. Project management
- II. Specification, Requirements and ICT infrastructure design
- III. Drive DR enabling technologies for residential and tertiary buildings
- IV. ICT Platform for demand response district management
- V. Development of data security mechanisms for Smart Grids
- VI. Systems integration
- VII. Demonstration and validation
- VIII. Results dissemination and exploitation
- IX. Ethics requirements

Project conclusions

The project has just started, no conclusions have been obtained yet.

PROJECT PARTNERS



Commissariat à l'énergie atomique et aux énergies alternatives



Cardiff University



Scholt Energy Services BV



Cassidian Cybersecurity SAS



Comsa Corporación



Enervalis



Typhoon Hil



R2M Solutions Spain



Blaenau Gwent County Borough Council

DURATION

December 2017-November 2020

BUDGET

Consortium budget

3.955.258.75 €

COMSA Budget

376.500€

COMSA Funding

376.500€

COORDINATOR



Commissariat à l'énergie atomique et aux énergies alternatives

CALL / TOPIC

LCE-01-2016-2017

