

TECNALIA Research & Innovation – TECNALIA



Description and scope

TECNALIA Research & Innovation is the first private Research, Development and Innovation (R&D&I) organization in Spain and one of the leading ones in Europe, with a staff of a more than 1500 experts (including 180 Doctors), 22 headquarters and a turnover of 125 million Euros. The Energy Unit of TECNALIA works in the research areas of solar energy (thermal and photovoltaic), energy storage, wind and wave energy, bioenergy and smart grids, as well as in testing and certification of electrical equipment and systems.

Main current researches

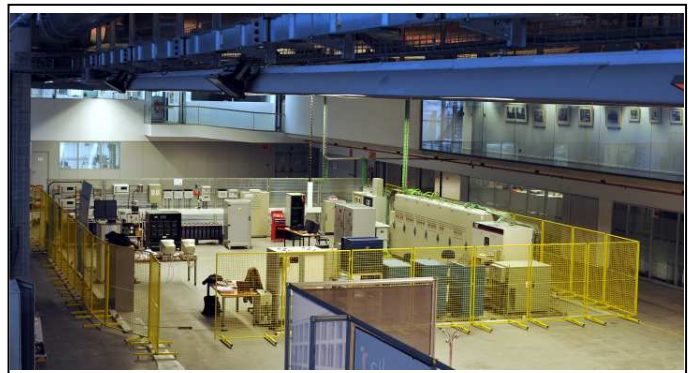
The Smart Grids Area of TECNALIA is focused on:

- Advanced power system architectures: microgrids for buildings and districts.
- Demand side management and demand response.
- New power converters for grid connection.
- Electric mobility: infrastructure, vehicle to grid applications (V2G).

Research Infrastructure Installation

Centre for Development and Demonstration of DER technologies (TECNALIA-LAB)

Microgrid formed by different generation, storage devices, loads, with a manageable power of 200 kVA. The facility deals with the connection, integration and validation of technologies related to DER including EV, as well as with the operation and control strategies of the entire microgrid.



Offered Services

The architecture and management system of TECNALIA-LAB microgrid provide several services:

- Analysis of grid connected inverters and their behaviour in islanding situation. Potential for contribution to grid stability.
- Management of electric vehicles connected to the grid:
 - Design and implementation of algorithms to manage the battery according to price signals
 - Design and implementation of algorithms to manage the battery according to the user's criteria
- Implementation of algorithms to fit a DC source in order to behave like renewable resources.

Contact details

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