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Established in 2007, REGENERA is a Spanish SME and Energy Services Company (ESCO) focused on energy efficiency, renewable energy and the environment.

Turning companies energy reductions into their main competitive advantage.



REGENERA is enrolled in the Spanish public register of innovative SMEs due to their high participation in R&D programmes such as H2020, LIFE and other national calls.



REGENERA is certified in the quality assurement and environment under the ISO 9001 & ISO 14001.



REGENERA is an agent market authorized to participate in the Spanish electricity production market (OMIE) as electricity buyer and seller.

REGENERA is an auditor certified by the Spanish national accreditation body (ENAC). REGENERA also usually works under international standards such as EVO protocols.







REGENERA Business lines:

- Engineering and technical assistance in energy consultancy and OMIE.
- Works and facilities: Energy efficiency and renewable energies.
- Maintenance & energy management.
- Energy services.
- R & D & innovation.







- P2P Smart Test project topic: LCE7-2014 "Smart Grids and Retails Markets". The project idea consists of creating a new algorithm bound to match energy generation and demand bids autonomously an at local level. Around this system it has been creating a new business model which involve all the stakeholders in that market (agents, consumers and prosumers).
- Regarding our contribution, we are studding coupled with Endesa prospective services and products to be exploited by the agents and offered to the electricity markets. http://www.p2psmartest-h2020.eu/







- NewTREND project topic: EeB5-2015 "Innovative design tools for refurbishing of buildings at district level". The project idea is about developing a set of <u>software tools</u> to evaluate possible <u>energy</u> <u>retrofit</u> actions/technologies in both <u>buildings and districts</u> and the business models that can be applied to each one.
- Here we contribute with our knowledge in smart grids, energy efficiency in buildings and new ESCO financing and business models (coupled with the London Business School). http://newtrend-project.eu/







 MAGNITUDE project - topic: LCE-05-2017: "Tools and technologies for coordination and integration of the European energy system". The main goal of this project is to design and develop business and market mechanisms as well as supporting coordination tools to enable an improved level of flexibility for the European electricity system, by increasing and optimizing synergies among electricity, gas and heat systems.



"MAGNITUDE"



LIFE Clean Up. The main objective of this project is to reduce the
environmental impact of emerging pollutants on urban wastewater
by the validation of one system able to eliminate these pollutants
and other pathogens. For that, a waste water treatment system
which will not generate waste (since the materials will be reusable)
and powered by renewable energies will be developed.



"LIFE CLEAN UP"



REGENERA also participates in two innovative projects at **national and regional level**:

- Clean up: This national project consists of the removal of contaminants in treated wastewater by means of a polymer which traps the mentioned compounds. After that, wastewater flows through an advanced oxidation process in removal the remaining waste.
- Agro-freesing: The idea of this regional project consist of and developing innovative methods by the purpose of energy efficiency in the refrigeration installations for the agro industry, extrapolating the results of the project to other areas.

REGENERA research interest





The REGENERA R&D team is composed by a <u>mix group of workers</u> under Industrial engineering, Building engineering and Mineral Resources and Energy engineering specialities.

Currently, the R&D team is focused on:

- Energy Demand Respond and Energy Flexibility.
- Microgrid and smart grid concepts.
- Optimization of water and waste water treatment plants energy consumption.
- Energy efficiency for buildings and smart cities.
- Modelling, simulation and Big Data.
- Development of new algorithms and smart energy tools able to make decisions autonoumosly.
- Development of new energy bussines models.

REGENERA research interest



REGENERA aims to participate – as a partner - in Projects under the following topics:

- LC-SC3-EE-1-2018-2019-2020: Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation
- LC-SC3-RES-4-2018: Renewable energy system integrated at the building scale
- LC-SC3-RES-6-2018: Demonstrate significant cost reduction for Building Integrated PV (BIPV) solutions
- LC-SC3-ES-5-2018-2020: TSO DSO Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation

REGENERA research interest



REGENERA aims to participate – as a partner - in Projects under the following topics:

- LC-SC3-EC-2-2018-2019-2020: Mitigating household energy poverty
- LC-SC3-SCC-1-2018-2019-2020: Smart Cities and Communities
- LC-SC3-ES-1-2019: Flexibility and retail market options for the distribution grid
- LC-SC3-JA-5-2019: Joint Programming with EU and African partners for a R&I actions in the area of renewable energy
- LC-SC3-RES-18-2020: Demonstration of the solutions based on renewable sources that provide flexibility to the energy system
- LC-SC3-EC-3-2020: Consumer engagement and demand response



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