

R&D PROJECT



PROJECT PARTNERS



Universitat
de Lleida



AUSTRIAN INSTITUTE
OF TECHNOLOGY



BUDGET

Consortium Budget: 5,995,840€

COMSA Budget: 284,062.5€

DURATION

From 01/10/2017 to 31/10/2021

CALL/TOPIC

H2020-EEB-2017

WEBSITE

<http://www.hybuild.eu>

Project title:

Innovative compact HYbrid electrical/thermal storage systems for low energy BUILDings

Acronym:

HYBUILD

PROJECT CONTENT

State of the art:

Buildings are responsible for 36% of CO₂ emissions and 40% of energy consumption in the EU. The 2010 EU Directive on Energy Performance of Buildings requires that Member States must set minimum energy performance requirements for buildings. Energy storage is a key component in providing flexibility and supporting renewable energy integration in the energy system and can efficiently contribute to the decarbonization of buildings. A promising research area is to exploit compact hybrid energy storage systems for covering space heating and/or cooling, Domestic Hot Water (DHW), and electricity demand

General Objectives:

HYBUILD is an EU Horizon 2020-funded project, coordinated by COMSA CORPORACIÓN. The main objectives of the project are:

O₁ to develop cost-effective and environmental-friendly energy storage technologies for HVAC solutions while ensuring comfort conditions in residential buildings located in different climate zones.

O₂ to increase the share and the flexibility of Renewable Energy Sources (Solar thermal and Photovoltaics) and enhance energy savings, leading to reduced greenhouse gas emissions and fossil fuel utilization, thus contributing to the EU energy security.

Technology:

HYBUILD will develop two innovative compact hybrid electrical/thermal storage systems for stand-alone and district connected buildings: one for the Mediterranean climate primarily meant for cooling energy provision, and one for the Continental climate primarily meant for heating and DHW production. During the four years of the project, the partners will work together, combining their different expertise and know-how to build and integrate different technologies (Sorption Storage, High-density latent storage, electrical architecture, Smart Control, etc.) into the two systems.

Demo-sites:

There are three demonstration sites of the HYBUILD project, situated in different areas:

Mediterranean



Aglantzia (Cyprus)

Mediterranean-Continental



Almatret (Spain)

Continental



Bordeaux (France)



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