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PRESS RELEASE

CHESS SETUP, a European project seeking buildings' energy self-sufficiency

Low temperature thermal demand (Domestic Hot Water and heating) is worth 50% of the apartment buildings' needs. A new European project looks for the most efficient solution to cover up this demand with solar energy, even during the months with the lowest level of solar radiation.

Barcelona, 6th of July 2016 – Today starts the European Project CHESS SETUP with its kick-off meeting in Barcelona. The project is part of the Horizon 2020 Program, 2014-2015 Work Programme "Secure, Clean and Efficient Energy".

CHESS SETUP stands for "Combined Heat Supply System by using Solar Energy and heat pUmPs". It is an evolution of a former project implemented by the Urban Ecology Agency of Barcelona: SCACS (Storage and domestic hot water System by means of Seasonal Thermal Storage).

The project focuses on the implementation of a system to provide heating and Domestic Hot Water (DHW) from thermal solar energy, heat storage in large reservoirs and heat pumps. The possibility to integrate other heating sources will also be considered (geothermal energy, biomass or heat residual) as well as other technologies (cogeneration, solar cooling production, hybrid solar panels). In addition, a monitoring and control system that would allow energy and economic optimization of the system will be designed. It will rely on electricity prices, users' habits, renewable energies integration into the mix, or weather forecast among other factors.

The Urban Ecology Agency of Barcelona is leading the Project that gathers 10 members from 6 European countries. Those members are the University of Ulster and Electric Corby from the UK, Wandsronk Architecktuur from The Netherlands, Eurogrant GmbH from Germany, Edenway SAS from France and Lavola, Wattia-Innova, Veolia, Sant Cugat del Vallès City Council and the abovementioned Urban Ecology Agency of Barcelona, from Spain.

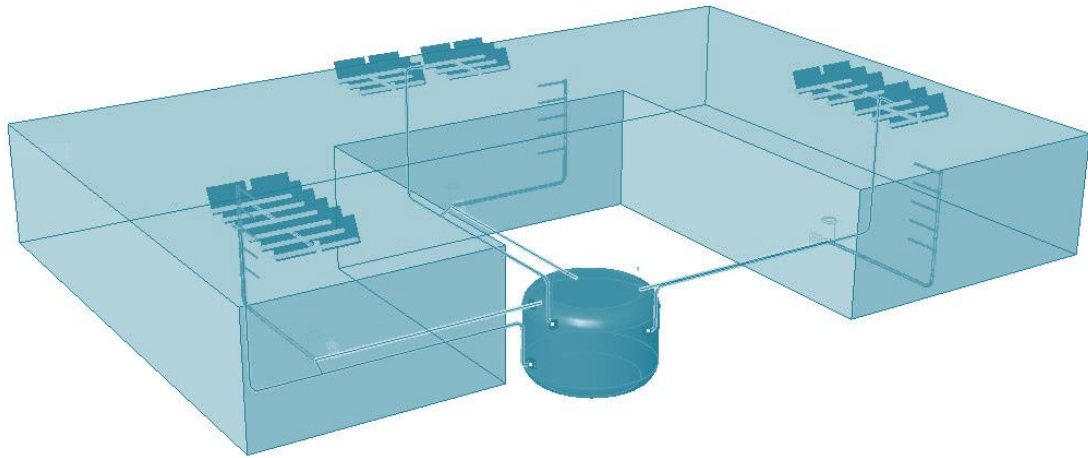
The project will include 3 pilot experiments. The first one will be carried out in Corby (UK), with the building of 50 residential units equipped with systems of thermal storage in the basement. The pilot will be smaller scale in Manlleu, where it will consist on an eco-building also equipped with a smaller thermal storage system. Finally, in Sant Cugat del Vallès, some sports facilities (including a swimming pool) will be upgraded to this technology through the incorporation of a tank with a large heat storage capacity.

The total project is budgeted at the level of 3.703.706,25 €, of which 90,8% (3,364,315.14 €) will be provided by the European Union, and will last 36 months.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 680556.



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SCACS model outline, original idea of the project



Picture of the partners involved in the project, during the kick off Meeting in Barcelona

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