HYBUILD
Hybrid Energy Storage for Buildings

Introduction to HYBUILD

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HYBUILD

INNOVATIVE COMPACT HYBRID ELECTRICAL/THERMAL STORAGE SYSTEM FOR LOW ENERGY BUILDINGS

Sustainable Places 2020 - Renewable Heating and Cooling Solutions for Buildings and Industry Workshop

29 October 2020
Digital Event

This is part of the project that has received funding from the European Union's Horizon 2020 research and innovation programme *under grant agreement No 768824.*
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0 Outline

1. HYBUILD in a nutshell
2. Overall concept
3. Critical aspects in the implementation

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1 HYBUILD in a nutshell

- Project type: RIA
- Project start: **10/2017**
- Project end: **03/2022**
- Overall EU contribution: **5,995,840 €**
- Consortium: **20 partners, 9 countries**
- Coordinator: COMSA

Kick-off meeting Brussels - 10/2017

www.hybuild.eu

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1 HYBUILD in a nutshell

- HYBUILD aims to develop **two innovative hybrid storage concepts**
  1. For **Mediterranean climate** primarily for **cooling energy** supply
  2. For **Continental climate** primarily meant for **heating and DHW** supply

- The concepts are based on innovative components such as:
  - a **compact sorption module**
  - a **high-density latent storage**
  - a **reversible vapour compression heat pump**
  - a **DC-bus interconnection**

- The whole systems will be properly managed by **advanced controls** and **Building Energy Management Systems (BEMS)**

- The systems will be **validated** in **three different demo-sites**

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1 HYBUILD in a nutshell

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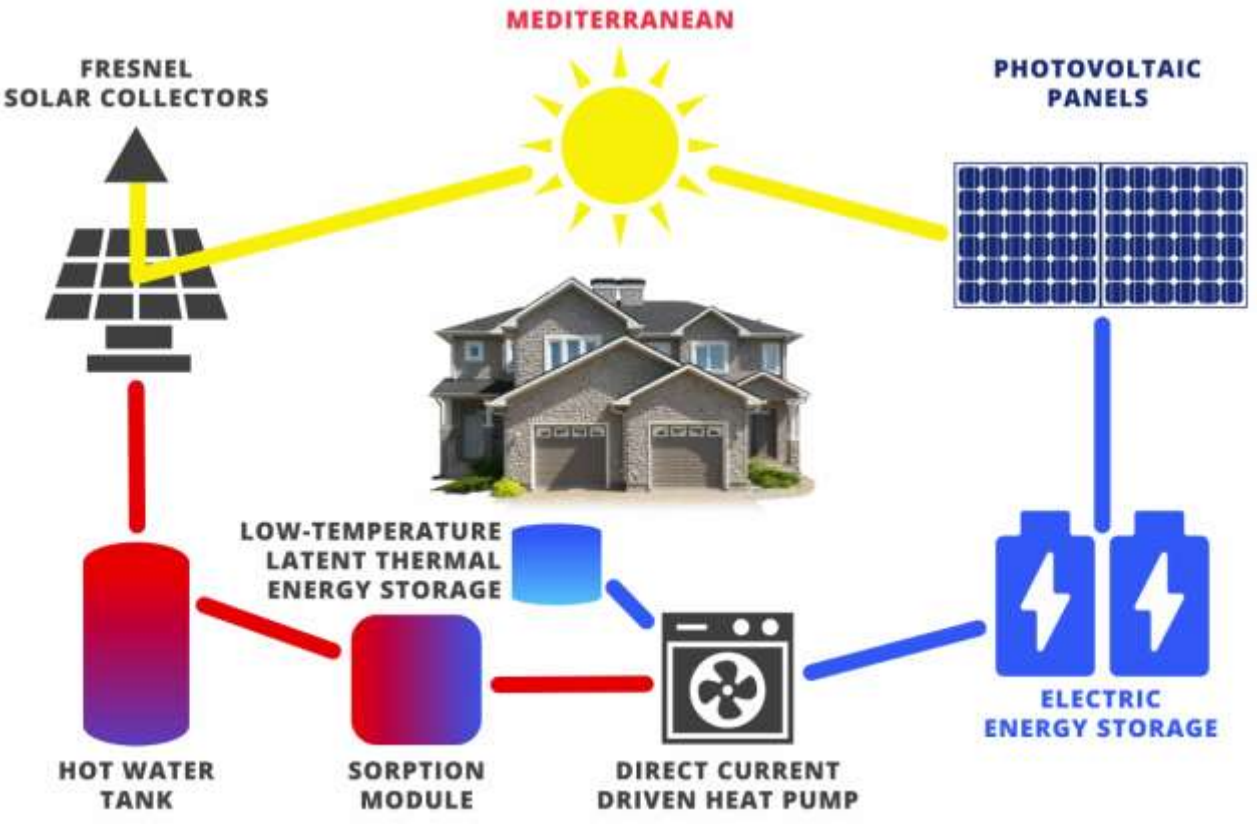
2 Overall concept

Mediterranean system (cooling)



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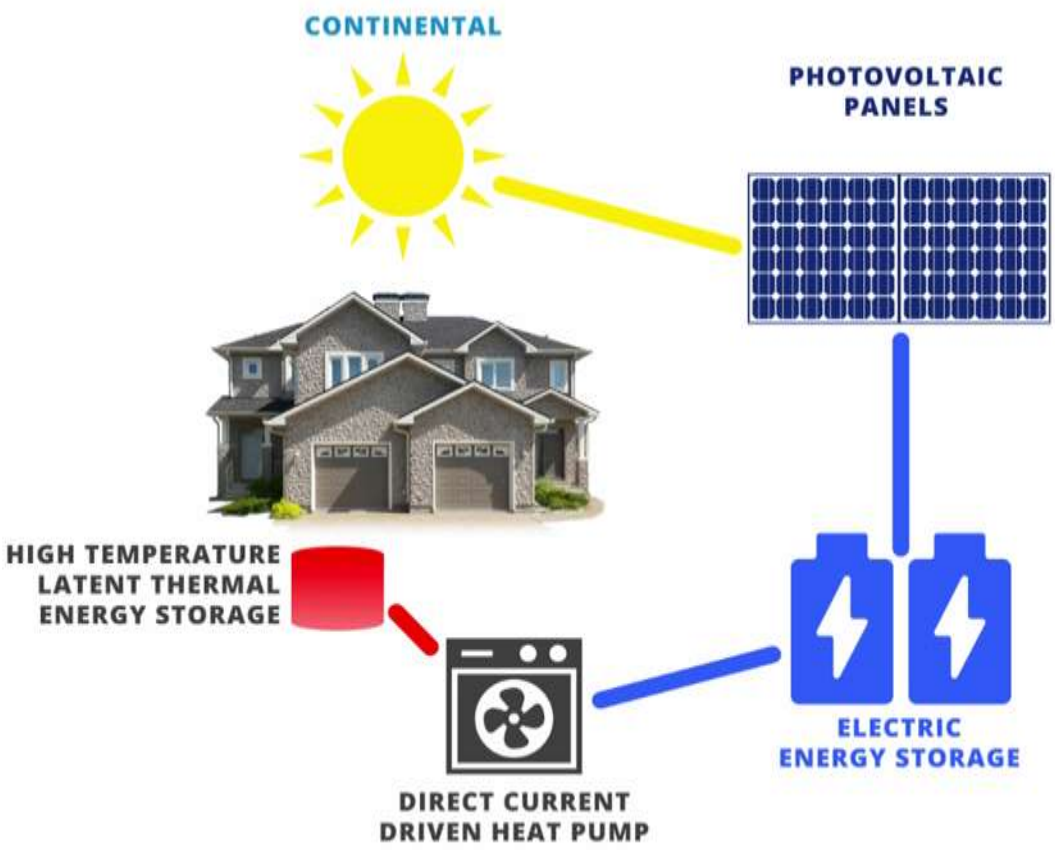
2 Overall concept

Continental system (heating & DHW)



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3 Critical aspects in the implementation

Integration of the heat pump & sorption chiller & latent storage

Overall system control logic definition and implementation

Continuous one full-year post-intervention monitoring at demo sites

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THANK YOU

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