

SCORES Self Consumption Of Renewable Energy by hybrid Storage systems

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Self Consumption Of Renewable Energy by hybrid Storage systems



D 8.5 Hardware of the system : photographs of the installed system

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1 Background

In WP8 the developed subsystems (heat pump with buffer store, battery storage including converter and PV, phase changing material electric heaters (PCM) are built up and connected to the BEMS. The following chapter shows the installed hardware system on the demonstration site in Agen (France). Further details on the sizes and characteristics of the system can be found in the Deliverables D8.1 – D8.3.





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2 Pictures of the demonstrator in AGEN (Demosite B)

2.1 HELIOPAC systems

Heat pumps on the ground floor.

The heat pumps use the heat collected by the PVT panels on the roof to produce domestic hot water for the building.







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Electrical cabinet

This is the HELIOPAC cabinet. It drives the domestic hot water system that uses 3 heat pumps.





Two buffers, the electrical cabinet on the right and the heat pumps on the left.





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The third buffer in orange and the expansion vessel in grey.



PVT solar panels

On the roof, the panels produce electricity and collect heat





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2.2 SIEMENS systems

BEMS

On the 1st floor, this is the central brain of the SCORES system.



Converter cabinet

On the 5th floor, makes the interface between the grid, the PV field and the batteries. This equipment is also connected to the BEMS.







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2.3 FORSEE POWER systems

2nd life batteries cabinet

On the 5th floor, stores energy according to the needs. It's connected to the BEMS. We can see the converter at the back.







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2.4 CAMPA systems

EHP - Phase change material heaters (PCM)

The three PCM heaters are located in the appt n°6. They are also connected to the BEMS.







